



Appendix A

FDOT Transportation System Performance Report





Table of Contents

Purpose.....	1
Background	1
Highway Safety measures (PM1)	3
Baseline Conditions	4
Trend Analysis	5
Coordination with Statewide Safety Plans and Processes.....	5
LRTP Safety Priorities.....	6
Pavement and Bridge Condition Measures (PM2)	7
Pavement and Bridge Condition Performance Measures and Targets Overview.....	7
Pavement and Bridge Condition Baseline Performance and Established Targets	8
System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program Measures (PM3)	11
System Performance/Freight/CMAQ Performance Measures and Targets Overview	11
PM3 Baseline Performance and Established Targets	13
Transit Asset Management Measures.....	15
Transit Asset Performance.....	15
Transit Safety Performance	19
Transit Safety Performance Measures	19
Transit Provider Coordination with States and MPOs	20
Transit Safety Targets in the Lee County MPO Area	20

List of Tables

Table 1: Highway Safety (PM1) Targets	3
Table 2: Highway Safety (PM1) Conditions and Performance.....	4
Table 3: Baseline Safety Performance Measures	4
Table 4: Trends of Lee MPO Safety Performance Measures	5
Table 5: Pavement and Bridge Condition (PM2) Performance and Targets	9
Table 6: System Performance and Freight (PM3) - Performance and Targets.....	13
Table 7: FTA TAM Performance Measures	15
Table 8: Florida Group TAM Plan Participants	17
Table 9: Transit Asset Management Targets for LeeTran	18
Table 10: LeeTran Transit Safety Performance Targets	20

2045 Transportation Plan





Purpose

This document provides language that Florida’s metropolitan planning organizations (MPO) may incorporate in Long-Range Transportation Plan (LRTP) System Performance Reports to meet the federal transportation performance management rules. Updates or amendments to the LRTP must incorporate a System Performance Report that addresses these measures and related information no later than:

- May 27, 2018 for Highway Safety measures (PM1);
- October 1, 2018 for Transit Asset Management measures;
- May 20, 2019 for Pavement and Bridge Condition measures (PM2);
- May 20, 2019 for System Performance measures (PM3); and
- July 20, 2021 for Transit Safety measures. (Due to the emergency declaration resulting from the COVID-19 pandemic, FTA issued a Notice of enforcement discretion which delayed the initial deadline of July 20, 2020 for one-year)

The document is consistent with the Transportation Performance Measures Consensus Planning Document developed jointly by the Florida Department of Transportation (FDOT) and the Metropolitan Planning Organization Advisory Council. This document outlines the minimum roles of FDOT, the MPOs, and the public transportation providers in the MPO planning areas to ensure consistency to the maximum extent practicable in satisfying the transportation performance management requirements promulgated by the United States Department of Transportation in Title 23 Parts 450, 490, 625, and 673 of the Code of Federal Regulations (23 CFR).

The document is organized as follows:

- Section 2 provides a brief background on transportation performance management;
- Section 3 covers the Highway Safety measures (PM1);
- Section 4 covers the Pavement and Bridge Condition measures (PM2);
- Section 5 covers System Performance measures (PM3);
- Section 6 covers Transit Asset Management (TAM) measures; and
- Section 7 covers Transit Safety measures. (This section is not included as a result of the Notice of enforcement discretion issued by FTA).

Background

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state departments of transportation (DOT) and metropolitan planning organizations (MPO) must apply a transportation performance management approach in carrying out their federally required transportation planning and programming activities. The process requires the establishment and use of a coordinated, performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan





Transportation Planning Final Rule (The Planning Rule).¹ This rule details how state DOTs and MPOs must implement new MAP-21 and FAST Act transportation planning requirements, including the transportation performance management provisions.

In accordance with the Planning Rule, the Lee County MPO must include a description of the performance measures and targets that apply to the MPO planning area and a System Performance Report as an element of its Long-Range Transportation Plan (LRTP). The System Performance Report evaluates the condition and performance of the transportation system with respect to required performance targets, and reports on progress achieved in meeting the targets in comparison with baseline data and previous reports. For MPOs that elect to develop multiple scenarios, the System Performance Report also must include an analysis of how the preferred scenario has improved the performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified targets.²

There are several milestones related to the required content of the System Performance Report:

- In any LRTP adopted on or after May 27, 2018, the System Performance Report must reflect Highway Safety (PM1) measures;
- In any LRTP adopted on or after October 1, 2018, the System Performance Report must reflect Transit Asset Management measures;
- In any LRTP adopted on or after May 20, 2019, the System Performance Report must reflect Pavement and Bridge Condition (PM2) and System Performance (PM3) measures; and
- In any LRTP adopted on or after July 20, 2021, the System Performance Report must reflect Transit Safety measures.

The Lee County MPO 2020-2045 Long-Range Transportation Plan was adopted on December 18, 2020. Per the Planning Rule, the System Performance Report for the Lee County MPO is included for the required Highway Safety (PM1), Bridge and Pavement (PM2), System Performance (PM3), Transit Asset Management, and Transit Safety targets.

¹ The Final Rule modified the Code of Federal Regulations at 23 CFR Part 450 and 49 CFR Part 613.

² Guidance from FHWA/FTA for completing the preferred scenario analysis is expected in the future. As of August 2019, no guidance has been issued.





Highway Safety measures (PM1)

Effective April 14, 2016, the FHWA established five highway safety performance measures³ to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled (VMT);
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled (VMT); and
5. Number of non-motorized fatalities and non-motorized serious injuries.

The Florida Department of Transportation (FDOT) publishes statewide safety performance targets in the HSIP Annual Report that it transmits to FHWA each year. Current safety targets address calendar year 2018 and are based on a five-year rolling average (2011-2015). For the 2018 HSIP annual report, FDOT established statewide HSIP interim safety performance measures and FDOT’s 2019 safety targets, which set the target at “0” for each performance measure to reflect the Department’s vision of zero deaths.

The Lee County MPO adopted/approved safety performance targets on November 20, 2019. Table 1 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT, as well as those areas in which the MPO has adopted a target specific to the MPO planning area.

Table 1: Highway Safety (PM1) Targets

Performance Target	Lee MPO agrees to plan and program projects so that they contribute toward the accomplishment of the FDOT safety target of zero	Lee County MPO has adopted a target specific to the MPO Planning Area
Number of fatalities	✓	
Rate of fatalities per 100 million vehicle miles traveled (VMT)	✓	
Number of serious injuries	✓	
Rate of serious injuries per 100 million vehicle miles traveled (VMT)	✓	
Number of non-motorized fatalities and non-motorized serious injuries.	✓	

Statewide system conditions for each safety performance measure are included in Table 2, along with system conditions in the Lee MPO metropolitan planning area. System conditions reflect baseline performance, which for this first system performance report is the same as the current reporting

³ 23 CFR Part 490, Subpart B





period (2011-2015). The latest safety conditions will be updated annually on a rolling 5-year window and reflected within each subsequent system performance report, to track performance over time in relation to baseline conditions and established targets.

Table 2: Highway Safety (PM1) Conditions and Performance

Performance Measures	Florida Statewide Baseline Performance (Five-Year Rolling Average 2012-2016)	Calendar Year 2019 Florida Performance Targets
Number of Fatalities	2,533	0
Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)	1.287	0
Number of Serious Injuries	20,552	0
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	10.452	0
Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries (VMT)	3,173	0

Baseline Conditions

To evaluate baseline Safety Performance Measures, the most recent five-year rolling average (2013-2017) of crash data and Vehicle Miles Traveled (VMT) were utilized. Table 3 in the next page presents the Baseline Safety Performance Measures for Florida and Lee MPO. Fatal crashes that occurred during the 2013 through 2017 timeframe are shown in the map titled Crash Fatalities in Lee County.

Table 3: Baseline Safety Performance Measures

Performance Measures	Florida	Lee MPO
Number of Fatalities	28210	97.2
Number of Serious Injuries	20910	515.8
Fatality Rate per 100 million Vehicle Mile Travelled (VMT)	1.36	1.3
Serious Injuries per 100 million Vehicle Miles Travelled (VMT)	10.122	7.1
Total number of non motorized Fatalities and non motorized Serious Injuries	3,249	95.2

Source: FDOT 2017 FHWA Performance Measures per MPO





Trend Analysis

The MPO uses crash data tracking fatalities and serious injuries in Lee County to analyze past trends and identify regional safety issues. Tracking these measures will help to estimate the effectiveness of future MPO transportation investment, as reflected in the TIP. Table 4 shows the changes in Safety Performance Measures for Lee MPO from 2013 through 2017. The measures shown in Table 4 were calculated by following the same methodology as that used to calculate the baseline conditions.

Table 4: Trends of Lee MPO Safety Performance Measures

Performance Measures	2009-13	2010-14	2011-15	2012-16	2013-17
Number of Fatalities	75.2	75.6	81	87.2	97.2
Number of Serious Injuries	456.6	458	460.4	498.6	515.8
Fatality Rate per 100 million Vehicle Mile Travelled (VMT)	1.16	1.14	1.19	1.23	1.33
Serious Injuries per 100 million Vehicle Miles Travelled (VMT)	7.07	6.92	6.79	7.10	7.08
Total number of non motorized Fatalities and non motorized Serious Injuries	76.8	80	84	91	95.2

Source: FDOT 2017 FHWA Performance Measures per MPO

Coordination with Statewide Safety Plans and Processes

The Lee MPO recognizes the importance of linking goals, objectives, and investment priorities to established performance objectives, and that this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the Lee MPO 2045 L RTP reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically the Florida Strategic Highway Safety Plan (SHSP), the Florida Highway Safety Improvement Program (HSIP), and the Florida Transportation Plan (FTP).

- The 2016 Florida Strategic Highway Safety Plan (SHSP) is the statewide plan focusing on how to accomplish the vision of eliminating fatalities and reducing serious injuries on all public roads. The SHSP was developed in coordination with Florida’s 27 metropolitan planning organizations (MPOs) through Florida’s Metropolitan Planning Organization Advisory Council (MPOAC). The SHSP guides FDOT, MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out throughout the State.
- The FDOT HSIP process provides for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The ultimate goal of the HSIP process is to reduce the number of crashes, injuries and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.
- Transportation projects are identified and prioritized with the MPOs and non-metropolitan local governments. Data are analyzed for each potential project, using traffic safety data and traffic demand modeling, among other data. The FDOT Project Development and Environment Manual requires the consideration of safety when preparing a proposed project’s purpose and need, and

2045 Transportation Plan





defines several factors related to safety, including crash modification factor and safety performance factor, as part of the analysis of alternatives. MPOs and local governments consider safety data analysis when determining project priorities.

L RTP Safety Priorities

The Lee County MPO 2045 L RTP increases the safety of the transportation system for motorized and non-motorized users as required. The L RTP aligns with the Florida SHSP and the FDOT HSIP with specific strategies to improve safety performance focused on prioritized safety projects, pedestrian and/or bicycle safety enhancements, and traffic operation improvements to address our goal to reduce fatalities and serious injuries.

The L RTP identifies safety needs within the metropolitan planning area and provides funding for targeted safety improvements. The Lee County MPO has developed a project selection process that that prioritizes transportation projects along roadways with safety concerns.

Increasing safety continues to be a goal of the new plan and safety will be used as a factor in project selection process.

The Lee County MPO 2045 L RTP will provide information from the FDOT HSIP annual reports to track the progress made toward the statewide safety performance targets. The MPO will document the progress on any safety performance targets established by the MPO for its planning area.

The current L RTP includes several projects that all fall under the infrastructure safety program including traffic signal updates, intersection improvements, and bicycle pedestrian improvements. The MPO will continue to implement the other infrastructure safety projects programmed in the TIP such as High Visibility Mid-Block Crossings with RRFBs, Rail Crossing Upgrades, and roadway lighting

The Lee MPO will continue to participate in the Southwest Florida Traffic Incident Team (TIM), Lee County Community Traffic Safety Team (CTST), and the Injury Prevention Council (IPC) meetings, as well as coordinate in identifying Infrastructure Safety Program projects and educational safety programs the Lee Health Trauma Center, the Safe Routes to School (SRTS) project coordination meetings. For the Lee County MPO this includes safety programs that recommend safety projects and education/enforcement programs through the Lee County Community Traffic Safety Team (CTST), the Injury Prevention Council (IPC), the Lee Health Trauma Center, the Safe Routes to School (SRTS) project coordination meetings and the MPO’s Traffic Management and Operations Committee (TMOC).

Lee County also participates in the Federal Section 130 Rail Safety Improvement Program. Under this program the FDOT District 1 Rail office set up a Diagnostic Review Team which meets onsite to review potential railroad crossing locations in Lee County for upgrade. The Diagnostic Review Team includes local government agencies in Lee County, FDOT District Rail, FDOT Central Office Rail, Seminole Gulf Railroad and the Federal Railroad Administration. Results from such reviews statewide are sent to FDOT Central Office Rail which then decides which proposed upgrades should be funded with Section 130 funds.

The Lee MPO is also currently updating its Bicycle Pedestrian Safety Action Master Plan (BPSAP). The Plan implements the Lee MPO’s Bike Ped Safety Education Programs and Countermeasure projects to

2045 Transportation Plan





drive down fatalities and serious injuries under the SHSP Pedestrians and Bicycles Emphasis area. As part of the 2020 update a risk-based assessment of fatal and incapacitating bicycle and pedestrian crashes in Lee County was conducted that resulted in the development of a list of projects with low to medium cost countermeasures for enhancing safety at high risk locations. Intersection countermeasures include Retroreflective Backplates, Special Emphasis Crosswalks, Leading Pedestrian Interval while segment specific countermeasures include upgrading pavement markings, enhanced bike lane markings, street lighting, access management, and installation of RRFBs and Pedestrian Hybrid Beacons, etc. Because these countermeasures target high crash locations with fatalities and incapacitating injuries, these projects are eligible for Highway Safety Program Funds, and it is expected that upcoming TIPs will see a lot of these projects.

Pavement and Bridge Condition Measures (PM2)

Pavement and Bridge Condition Performance Measures and Targets

Overview

In January 2017, USDOT published the Pavement and Bridge Condition Performance Measures Final Rule, which is also referred to as the PM2 rule. This rule establishes the following six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
4. Percent of non-Interstate NHS pavements in poor condition;
5. Percent of NHS bridges (by deck area) classified as in good condition; and
6. Percent of NHS bridges (by deck area) classified as in poor condition.

For the pavement measures, five pavement metrics are used to assess condition:

- International Roughness Index (IRI) - an indicator of roughness; applicable to all asphalt and concrete pavements;
- Cracking percent - percentage of the pavement surface exhibiting cracking; applicable to all asphalt and concrete pavements;
- Rutting - extent of surface depressions; applicable to asphalt pavements;
- Faulting - vertical misalignment of pavement joints; applicable to certain types of concrete pavements; and
- Present Serviceability Rating (PSR) – a quality rating applicable only to certain lower speed roads.

For each pavement metric, a threshold is used to establish good, fair, or poor condition. Pavement condition is assessed for each 0.1 mile section of the through travel lanes of mainline highways on the Interstate or the non-Interstate NHS using these metrics and thresholds. A pavement section is rated as good if all three metric ratings are good, and poor if two or more metric ratings are poor. Sections that are not good or poor are considered fair.

The good/poor measures are expressed as a percentage and are determined by summing the total lane-miles of good or poor highway segments and dividing by the total lane-miles of all highway





segments on the applicable system. Pavement in good condition suggests that no major investment is needed and should be considered for preservation treatment. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

The bridge condition measures refer to the percentage of bridges by deck area on the NHS that are in good condition or poor condition. The measures assess the condition of four bridge components: deck, superstructure, substructure, and culverts. Each component has a metric rating threshold to establish good, fair, or poor condition. Each bridge on the NHS is evaluated using these ratings. 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.

The bridge measures are expressed as the percent of NHS bridges in good or poor condition. The percent is determined by summing the total deck area of good or poor NHS bridges and dividing by the total deck area of the bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width.

A bridge in good condition suggests that no major investment is needed. A bridge in poor condition is safe to drive on; however, it is nearing a point where substantial reconstruction or replacement is needed.

Federal rules require state DOTs and MPOs to coordinate when setting pavement and bridge condition performance targets and monitor progress towards achieving the targets. States must establish:

- Four-year statewide targets for the percent of Interstate pavements in good and poor condition;
- Two-year and four-year targets for the percent of non-Interstate NHS pavements in good and poor condition; and
- Two-year and four-year targets for the percent of NHS bridges (by deck area) in good and poor condition.

MPOs must establish four-year targets for all six measures. MPOs can either agree to program projects that will support the statewide targets, or establish their own quantifiable targets for the MPO's planning area.

The two-year and four-year targets represent pavement and bridge condition at the end of calendar years 2019 and 2021, respectively.

Pavement and Bridge Condition Baseline Performance and Established Targets

This System Performance Report discusses the condition and performance of the transportation system for each applicable target as well as the progress achieved by the MPO in meeting targets in comparison with system performance recorded in previous reports. Because the federal performance measures are new, performance of the system for each measure has only recently been collected and targets have only recently been established. Accordingly, this first Lee County MPO LRTP System Performance Report highlights performance for the baseline period, which is 2017. FDOT will continue





to monitor and report performance on a biennial basis. Future System Performance Reports will discuss progress towards meeting the targets since this initial baseline report.

Table 5 presents baseline performance for each PM2 measure for the State and for the MPO planning area as well as the two-year and four-year targets established by FDOT for the State.

On May 18, 2018, FDOT established statewide performance targets for the pavement and bridge measures. On September 2018, the Lee MPO agreed to support FDOT’s statewide pavement and bridge performance targets, thus agreeing to plan and program projects in the TIP that once implemented, are anticipated to make progress toward achieving the statewide targets. Table 5 shows the statewide targets:

Table 5: Pavement and Bridge Condition (PM2) Performance and Targets

Performance Measures	Statewide Performance (2017 Baseline)	Statewide 2-year Target (2019)	Statewide 4-year Target (2021)
Percent of Interstate pavements in good condition	66%	n/a	60%
Percent of Interstate pavements in poor condition	0.1%	n/a	5%
Percent of non-Interstate NHS pavements in good condition	76.4%	40%	40%
Percent of non-Interstate NHS pavements in poor condition	3.6%	5%	5%
Percent of NHS bridges (by deck area) in good condition	67.7%	50%	50%
Percent of NHS bridges (by deck area) in poor condition	1.2%	10%	10%

FDOT established the statewide PM2 targets on May 18, 2018. In determining its approach to establishing performance targets for the federal pavement and bridge condition performance measures, FDOT considered many factors. To begin with, FDOT is mandated by Florida Statute 334.046 to preserve the state’s pavement and bridges to specific standards. To adhere to the statutory guidelines, FDOT prioritizes funding allocations to ensure the current transportation system is adequately preserved and maintained before funding is allocated for capacity improvements. These statutory guidelines envelope the statewide federal targets that have been established for pavements and bridges.





In addition, MAP-21 requires FDOT to develop a Transportation Asset Management Plan (TAMP) for all NHS pavements and bridges within the state. The TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of the state DOT targets for asset condition and performance of the NHS. FDOT’s TAMP was updated to reflect MAP-21 requirements in 2018.

Further, the federal pavement condition measures require a new methodology that is a departure from the methods currently used by FDOT and uses different ratings and pavement segment lengths. For bridge condition, the performance is measured in deck area under the federal measure, while the FDOT programs its bridge repair or replacement work on a bridge by bridge basis. As such, the federal measures are not directly comparable to the methods that are most familiar to FDOT.

In consideration of these differences, as well as the unfamiliarity associated with the new required processes, FDOT took a conservative approach when setting its initial pavement and bridge condition targets.

The Lee MPO agreed to support FDOT’s pavement and bridge condition performance targets on September 2018. By adopting FDOT’s targets, the Lee MPO agrees to plan and program projects that help FDOT achieve these targets.

The Lee County MPO recognizes the importance of linking goals, objectives, and investment priorities to established performance objectives, and that this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the Lee County MPO 2045 LRTP reflects the goals, objectives, performance measures, and targets as they are described in other state and public transportation plans and processes, including the Florida Transportation Plan (FTP) and the Florida Transportation Asset Management Plan.

- The FTP is the single overarching statewide plan guiding Florida’s transportation future. It defines the state’s long-range transportation vision, goals, and objectives and establishes the policy framework for the expenditure of state and federal funds flowing through FDOT’s work program. One of the seven goals defined in the FTP is Agile, Resilient, and Quality infrastructure.
- The Florida Transportation Asset Management Plan (TAMP) explains the processes and policies affecting pavement and bridge condition and performance in the state. It presents a strategic and systematic process of operating, maintaining, and improving these assets effectively throughout their life cycle.

The Lee County MPO 2045 LRTP seeks to address system preservation, identifies infrastructure needs within the metropolitan planning area, and provides funding for targeted improvements. The MPO uses a project evaluation process related to pavement and bridge condition in the LRTP that prioritizes projects that preserve and maintain the existing transportation assets including resurfacing and repairs. Additionally, one of the LRTP’s goals focuses on improving the resiliency and reliability of the transportation system.

The LRTP devotes a significant amount of resources to projects that will maintain pavement and bridge condition performance on the Interstate and non-Interstate NHS in the MPO area. Current

2045 Transportation Plan





investments in pavement and bridge condition in the LRTP include bridge rehabilitation, pavement replacement and reconstruction, and roadway capacity improvements. The LRTP has programmed \$256 million for bridge replacement and reconstruction, \$59 million for corridor lane management, and \$2.2 billion for new capacity. Given the significant resources devoted in the LRTP and the TIP to pavement and bridge projects, the MPO anticipates that the LRTP goals, strategies, and programmed projects will contribute to progress towards achieving the statewide pavement and bridge condition performance targets.

On or before October 1, 2020, FDOT will provide FHWA and the Lee County MPO a detailed report of pavement and bridge condition performance covering the period of January 1, 2018 to December 31, 2019. FDOT and the Lee County also will have the opportunity at that time to revisit the four-year PM2 targets.

System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program Measures (PM3)

System Performance/Freight/CMAQ Performance Measures and Targets Overview

In January 2017, USDOT published the System Performance/Freight/CMAQ Performance Measures Final Rule to establish measures to assess passenger and freight performance on the Interstate and non-Interstate National Highway System (NHS), and traffic congestion and on-road mobile source emissions in areas that do not meet federal National Ambient Air Quality Standards (NAAQS). The rule, which is referred to as the PM3 rule, requires MPOs to set targets for the following six performance measures:

National Highway Performance Program (NHPP)

1. Percent of person-miles on the Interstate system that are reliable, also referred to as Level of Travel Time Reliability (LOTTR);
2. Percent of person-miles on the non-Interstate NHS that are reliable (LOTTR);

National Highway Freight Program (NHFP)

3. Truck Travel Time Reliability index (TTTR);

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative 2-year and 4-year reduction of on-road mobile source emissions (NO_x, VOC, CO, PM₁₀, and PM_{2.5}) for CMAQ funded projects.

In Florida, only the two LOTTR performance measures and the TTTR performance measure apply. Because all areas in Florida meet current NAAQS, the last three measures listed measures above pertaining to the CMAQ Program do not currently apply in Florida.





LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, Mid-day, PM peak, and weekends) that cover the hours of 6 a.m. to 8 p.m. each day. The LOTTR ratio is calculated for each roadway segment, essentially comparing the segment with itself. Segments with $LOTTR \geq 1.50$ during any of the above time periods are considered unreliable. The two LOTTR measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles take into account the number of people traveling in buses, cars, and trucks over these roadway segments. To obtain person miles traveled, the vehicle miles traveled (VMT) for each segment are multiplied by the average vehicle occupancy for each type of vehicle on the roadway. To calculate the percent of person miles traveled that are reliable, the sum of the number of reliable person miles traveled is divide by the sum of total person miles traveled.

TTTR is defined as the ratio of longer truck travel times (95th percentile) to a normal travel time (50th percentile) over the Interstate during five time periods (AM peak, Mid-day, PM peak, weekend, and overnight) that cover all hours of the day. TTTR is quantified by taking a weighted average of the maximum TTTR from the five time periods for each Interstate segment. The maximum TTTR is weighted by segment length, then the sum of the weighted values are divided by the total Interstate length to calculate the Travel Time Reliability Index.

The data used to calculate these PM3 measures are provided by FHWA via the National Performance Management Research Data Set (NPMRDS). This dataset contains travel times, segment lengths, and Annual Average Daily Travel (AADT) for Interstate and non-Interstate NHS roads.

The PM3 rule requires state DOTs and MPOs to coordinate when establishing performance targets for these measures and to monitor progress towards achieving the targets. FDOT must establish:

- Two-year and four-year statewide targets for percent of person-miles on the Interstate system that are reliable;
- Four-year targets for the percent of person-miles on the non-Interstate NHS that are reliable⁴; and
- Two-year and four-year targets for truck travel time reliability

MPOs must establish four-year performance targets for all three measures within 180 days of FDOT establishing statewide targets. MPOs establish targets by either agreeing to program projects that will support the statewide targets, or setting quantifiable targets for the MPO's planning area.

The two-year and four-year targets represent system performance at the end of calendar years 2019 and 2021, respectively.

⁴ Beginning with the second performance period covering January 1, 2022 to December 31, 2025, two year targets will be required in addition to four-year targets for the percent of person-miles on the non-Interstate NHS that are reliable measure.





PM3 Baseline Performance and Established Targets

The System Performance Report discusses the condition and performance of the transportation system for each applicable PM3 target as well as the progress achieved by the MPO in meeting targets in comparison with system performance recorded in previous reports. Because the federal performance measures are new, performance of the system for each measure has only recently been collected and targets have only recently been established. Accordingly, this first Lee County MPO LRTP System Performance Report highlights performance for the baseline period, which is 2017. FDOT will continue to monitor and report performance on a biennial basis. Future System Performance Reports will discuss progress towards meeting the targets since this initial baseline report.

Table 6 presents baseline performance for each PM3 measure for the state and for the MPO planning area as well as the two-year and four-year targets established by FDOT for the state.

Table 6: System Performance and Freight (PM3) – Performance and Targets

Performance Measures	Statewide Performance (2017 Baseline)	Statewide 2-year Target (2019)	Statewide 4-year Target (2021)	Lee County MPO Performance (2017 Baseline)
Percent of person-miles on the Interstate system that are reliable (Interstate LOTTR)	82.2%	75.0%	70.0%	Not Available
Percent of person-miles on the non-Interstate NHS that are reliable (Non-Interstate NHS LOTTR)	84.0%	n/a	50.0%	Not Available
Truck travel time reliability index (TTTR)	1.43%	1.75	2.00%	Not Available

FDOT established the statewide PM3 targets on May 18, 2018. In setting the statewide targets, FDOT reviewed external and internal factors that may affect reliability, conducted a trend analysis for the performance measures, and developed a sensitivity analysis indicating the level of risk for road segments to become unreliable within the time period for setting targets. One key conclusion from this effort is that there is a lack of availability of extended historical data with which to analyze past trends and a degree of uncertainty about future reliability performance. Accordingly, FDOT took a conservative approach when setting its initial PM3 targets.

The Lee County MPO agreed to support FDOT’s PM3 targets on September 21, 2018. By adopting FDOT’s targets, the Lee County MPO agrees to plan and program projects that help FDOT achieve these targets.

The Lee County MPO recognizes the importance of linking goals, objectives, and investment priorities to established performance objectives, and that this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the Lee County MPO

2045 Transportation Plan





2045 LRTP reflects the goals, objectives, performance measures, and targets as they are described in other state and public transportation plans and processes, including the Florida Transportation Plan (FTP) and the Florida Freight Mobility and Trade Plan.

- The FTP is the single overarching statewide plan guiding Florida’s transportation future. It defines the state’s long-range transportation vision, goals, and objectives and establishes the policy framework for the expenditure of state and federal funds flowing through FDOT’s work program. One of the seven goals of the FTP is Efficient and Reliable Mobility for People and Freight.
- The Florida Freight Mobility and Trade Plan presents a comprehensive overview of the conditions of the freight system in the state, identifies key challenges and goals, provides project needs, and identifies funding sources. Truck reliability is specifically called forth in this plan, both as a need as well as a goal.

The Lee County MPO 2045 LRTP seeks to address system reliability and congestion mitigation through various means, including capacity expansion and operational improvements. The MPO includes managing congestion in the LRTP goals and uses a project evaluation process that addresses reducing congestion through congestion mitigation measures.

Investments in the LRTP include capacity expansion and intersection improvements that provide congestion relief, investments in transit, bicycle and pedestrian systems that promote modal shift, interchange improvements that will increase freight reliability and mobility on Interstate 75, and TSMO projects. Of these investments approximately \$210 million towards intersection and interchange improvements, \$65 million in ITS/CFI improvements, and \$62.5 million towards the expansion of the bicycle pedestrian network. Given the significant resources devoted in the LRTP to programs that address system performance and freight, the Lee MPO anticipates that the LRTP will contribute to progress towards achieving the statewide reliability performance targets.

On or before October 1, 2020, FDOT will provide FHWA and the Lee County MPO a detailed report of performance for the PM3 measures covering the period of January 1, 2018 to December 31, 2019. FDOT and the Lee County MPO also will have the opportunity at that time to revisit the four-year PM3 targets

2045 Transportation Plan





Transit Asset Management Measures

Transit Asset Performance

On July 26, 2016, FTA published the final Transit Asset Management rule. This rule applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets. The rule defines the term “state of good repair,” requires that public transportation providers develop and implement transit asset management (TAM) plans, and establishes state of good repair standards and performance measures for four asset categories: transit equipment, rolling stock, transit infrastructure, and facilities. The rule became effective on October 1, 2018.

Table 7 below identifies performance measures outlined in the final rule for transit asset management.

Table 7: FTA TAM Performance Measures

Asset Category	Performance Measure and Asset Class
1. Equipment	Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark
2. Rolling Stock	Percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark
3. Infrastructure	Percentage of track segments with performance restrictions
4. Facilities	Percentage of facilities within an asset class rated below condition 3 on the TERM scale

For equipment and rolling stock classes, useful life benchmark (ULB) is defined as the expected lifecycle of a capital asset, or the acceptable period of use in service, for a particular transit provider’s operating environment. ULB considers a provider’s unique operating environment such as geography and service frequency and is not the same as an asset’s useful life.

Public transportation agencies are required to establish and report transit asset management targets annually for the following fiscal year. Each public transit provider or its sponsors must share its targets, TAM, and asset condition information with each MPO in which the transit provider’s projects and services are programmed in the MPO’s TIP.

MPOs are required to establish initial transit asset management targets within 180 days of the date that public transportation providers establish initial targets. However, MPOs are not required to establish transit asset management targets annually each time the transit provider establishes targets. Instead, subsequent MPO targets must be established when the MPO updates the TIP or LRTP.

When establishing transit asset management targets, the MPO can either agree to program projects that will support the transit provider targets, or establish its own separate regional transit asset





management targets for the MPO planning area. In cases where two or more providers operate in an MPO planning area and establish different targets for a given measure, the MPO has the option of coordinating with the providers to establish a single target for the MPO planning area, or establishing a set of targets for the MPO planning area that reflects the differing transit provider targets.

To the maximum extent practicable, transit providers, states, and MPOs must coordinate with each other in the selection of performance targets.

The TAM rule defines two tiers of public transportation providers based on size parameters. Tier I providers are those that operate rail service or more than 100 vehicles in all fixed route modes, or more than 100 vehicles or more in one non-fixed route mode. Tier II providers are those that are a subrecipient of FTA 5311 funds, or an American Indian Tribe, or have 100 or less vehicles across all fixed route modes, or have 100 vehicles or less in one non-fixed route mode. A Tier I provider must establish its own transit asset management targets, as well as report performance and other data to FTA. A Tier II provider has the option to establish its own targets or to participate in a group plan with other Tier II providers whereby targets are established by a plan sponsor, typically a state DOT, for the entire group.

A total of 28 transit providers participated in the FDOT Group TAM Plan (Table 8). The participants in the FDOT Group TAM Plan are comprised of the Section 5311 Rural Program and open-door Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities FDOT subrecipients. The Group TAM Plan was adopted in October 2018 and covers fiscal years 2018-2019 through 2021-2022.





Table 8: Florida Group TAM Plan Participants

District	Participating Transit Providers	
1	Good Wheels, Inc Central Florida Regional Planning Council	DeSoto County Transportation
2	Suwannee Valley Transit Big Bend Transit Baker County Council on Aging Nassau County Transit	Clay Transit Ride Solutions Levy County Transit Ride Solutions Suwannee River Economic Council (SREC)
3	Tri-County Community Council Big Bend District 3 Santa Rosa Transit Gulf County ARC	Calhoun Senior Citizen Center Liberty County Transit JTRANS Wakulla Transit
4	<i>No participating providers</i>	
5	Sumter Transit Marion Transit	Flagler County Public Transportation
6	Key West Transit	
7	Neighborhood Care Network Mid-Florida Community Service ARC Tampa Bay	ARC Nature Coast PARC

LeeTran is the only public transit provider operating in the Lee MPO area. It is a Tier 2 provider and has opted to develop its own TAM Plan and targets. There are no Tier 1 provider in the area.

On September 21, 2018, the Lee MPO agreed to support LeeTran transit asset management targets, thus agreeing to plan and program projects in the TIP that once implemented, are anticipated to make progress toward achieving the transit provider targets.

LeeTran established the transit asset targets identified in Table 9 on September 6th. The transit asset management targets are based on the condition of existing transit assets and planned investments in equipment, rolling stock, infrastructure, and facilities. The targets reflect the most recent data available on the number, age, and condition of transit assets, and expectations and capital investment plans for improving these assets. The table summarizes both existing conditions for the most recent year available, and the targets.





Table 9: Transit Asset Management Targets for LeeTran

Asset Category Performance Measure	Asset Class	FY 2019 Asset Condition	FY 2020 Target	FY 2021 Target
Rolling Stock				
Age - % of revenue vehicles within a particular asset class that have met or exceeded their ULB	Bus	15%	7%	3%
	Cutaway Bus	10%	12%	
	Van	0%	0%	
	Tram	0%	0%	
	Cap Van	0%	0%	
Equipment				
Age - % of non-revenue vehicles within a particular asset class that have met or exceeded their ULB	Non-Revenue/Service Automobile	10%	6%	6%
	Trucks and other Rubber Tire Vehicles	0%	0%	
Facilities				
Condition - % of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	Administration	0%	0%	
	Maintenance	0%	0%	
	Passenger Facilities	0%	0%	
	Wash Bay	0%	0%	
	Fuel Building	0%	0%	
	Non-Transit Use	0%	0%	





Transit Safety Performance

The Federal Transit Administration (FTA) published a final Public Transportation Agency Safety Plan (PTASP) rule and related performance measures as authorized by Section 20021 of the Moving Ahead for Progress in the 21st Century Act (MAP- 21). The PTASP rule requires operators of public transportation systems that receive federal financial assistance under 49 U.S.C. Chapter 53 to develop and implement a PTASP based on a safety management systems approach. Development and implementation of PTASPs is anticipated to help ensure that public transportation systems are safe nationwide.

The rule applies to all operators of public transportation that are a recipient or sub-recipient of FTA Urbanized Area Formula Grant Program funds under 49 U.S.C. Section 5307, or that operate a rail transit system that is subject to FTA’s State Safety Oversight Program. The rule does not apply to certain modes of transit service that are subject to the safety jurisdiction of another Federal agency, including passenger ferry operations that are regulated by the United States Coast Guard, and commuter rail operations that are regulated by the Federal Railroad Administration.

Rail operators subject to the rule, and operators of large bus systems (more than 100 vehicles in peak revenue service), must draft and implement their own PTASP. For small operators (defined as those operating 100 or fewer vehicles in peak revenue service) subject to the rule, states must draft and certify PTASPs on their behalf, unless a small provider opts to draft and certify its own safety plan and notifies the State that they will do so. FTA allows the state and small providers within the state to decide whether the state will develop a single statewide PTASP for all small providers, or whether it will draft and certify multiple individualized safety plans for each provider. FTA recommends as best practice that the state develop individualized PTASPs for each small provider. If a state drafts a single statewide PTASP, the state must ensure that the plan clearly identifies the specific safety information for each provider, including the safety performance targets. Regardless of whether the state or small transit provider drafts and certifies a safety plan, each transit provider is required to implement its own safety plan.

The PTASP rule was published on July 19, 2018 with an effective date of July 19, 2019. Transit operators subject to the rule must have a PTASP and safety targets in place by July 20, 2020. MPOs must then establish transit safety targets no later than 180 days after the transit operators establishes its targets.

Transit Safety Performance Measures

The transit agency sets targets in the PTASP based on the safety performance measures established in the National Public Transportation Safety Plan (NPTSP). The required transit safety performance measures are:

1. Total number of reportable fatalities.
2. Rate of reportable fatalities per total vehicle revenue miles by mode.
3. Total number of reportable injuries.
4. Rate of reportable injuries per total vehicle revenue miles by mode.
5. Total number of reportable safety events.
6. Rate of reportable events per total vehicle revenue miles by mode.
7. System reliability - Mean distance between major mechanical failures by mode.

2045 Transportation Plan





Transit Provider Coordination with States and MPOs

Key considerations for MPOs and transit agencies:

- Transit operators are required to review, update, and certify their PTASP annually.
- A transit agency must make its safety performance targets available to states and MPOs to aid in the planning process, along with its safety plans.
- To the maximum extent practicable, a transit agency must coordinate with states and MPOs in the selection of state and MPO safety performance targets.
- MPOs are required to establish initial transit safety targets within 180 days of the date that public transportation providers establish initial targets. MPOs are not required to establish transit safety targets annually each time the transit provider establishes targets. Instead, subsequent MPO targets must be established when the MPO updates the TIP or LRTP. When establishing transit safety targets, the MPO can either agree to program projects that will support the transit provider targets, or establish its own regional transit targets for the MPO planning area. In cases where two or more providers operate in an MPO planning area and establish different targets for a given measure, the MPO has the option of coordinating with the providers to establish a single target for the MPO planning area, or establishing a set of targets for the MPO planning area that reflects the differing transit provider targets.
- MPOs and states must reference those targets in their long-range transportation plans. States and MPOs must each describe the anticipated effect of their respective transportation improvement programs toward achieving their targets.

Transit Safety Targets in the Lee County MPO Area

The public transportation provider subject to the PTASP requirements operating in the MPO region is LeeTran.

LeeTran established the transit safety targets identified in Table 10 on September 15, 2020. In 2021, the Lee County MPO will review LeeTran’s transit safety targets for potential approval.

Table 10: LeeTran Transit Safety Performance Targets

Safety Performance Targets							
<i>Specify performance targets based on the safety performance measures established under the National Public Transportation Safety Plan. *Safety event and injury targets are based on a reducing each by one event for every mode from CY 2019 NTD data. Every year target is met it will be reduced by one event until reaching zero. *Reliability based on maintaining current level.</i>							
Mode of Transit Service	Total Fatalities	Fatality Rate per 100,000 mi.	Total Injuries	Injury Rate per 100,000 mi.	System Reliability Mean distance between Mechanical failure	Total Safety Events	Safety Event Rate per 100,000 mi
MB - Bus	0	0	15	≤ 0.5	≤ 56,476	14	≤ 0.47
DR-Demand Response	0	0	2	≤ 0.13	≤ 61,023	3	≤ 0.2
VP-Van Pool	0	0	0	0	100%	0	0

