



U.S. Department of Transportation

Memorandum

6300 Georgetown Pike
McLean, Virginia 22101

**Federal Highway
Administration**

Subject: **ACTION**: LTPP Directive GO-63
Pavement Performance Monitoring Guidelines

Date: September 19, 2016

From: Jack Springer *Jack Springer*
Long Term Pavement Performance Team

Reply to
Attn of: HRDI-30

To: Mr. Gabe Cimini, PM - LTPP North Atlantic Regional Contract
Mr. Gabe Cimini, PM - LTPP North Central Regional Contract
Mr. James Sassin, PM - LTPP Southern Regional Contract
Mr. Kevin Senn, PM - LTPP Western Regional Contract

Attached is Long Term Pavement Performance (LTPP) Program Directive GO-63. This directive contains pavement performance monitoring guidelines intended to optimize use of available LTPP program resources. This directive supersedes GO-47. All pavement performance data collection should follow these guidelines. Please ensure that all personnel involved with the process are aware of this new directive.

Should you have any questions concerning this directive, please do not hesitate to contact me on (202) 493-3149 or jane.jiang@fhwa.dot.gov.

Attachment

FHWA:
File: M:\LTPP Directives\GO\Go-63
cc:
Jonathon Groeger (TSSC)
Jack Springer
Directive Binder
Official File

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program



Program Area: General Operations Directive Number: GO-63
Date: September 19, 2016 Supersedes: GO-47
Subject: Pavement Performance Monitoring Guidelines

Introduction

This directive contains pavement performance monitoring guidelines intended to optimize use of available LTPP program resources.

Pavement Performance Monitoring Plan and Schedule

LTPP Regional Support Contractors (RSC) shall develop a three month pavement performance monitoring plan and schedule for active test sections in their region and it shall be included in the region's quarterly report. The monitoring schedule shall be posted on the web page associated with the RSC region and be updated monthly or when significant changes are made to the schedule. This plan shall be developed following the guidelines and considerations contained in this directive.

Pavement Performance Plan and Schedule Guidelines

The following considerations, priorities, and factors shall be taken into account when developing pavement performance plans and schedules.

- Highest priority shall be assigned to test sections scheduled for a construction event that will cover the test section surface. As a minimum, pre-construction monitoring on these sections shall consist of manual distress survey and longitudinal profile/texture measurements. While deflection measurements should be considered for all test sections going out-of-study, there may be situations where these measurements are cost prohibitive or not warranted based on engineering judgment.
- Test sections in poor condition which are suspected to receive a terminal construction event in the near future, or in close out monitoring category, should be given priority over test sections still in good condition, based on RSC engineering judgment and historic knowledge of participating highway agencies practices.
- When possible, manual distress surveys and longitudinal profile/texture measurements shall be scheduled within four months of each other.

Directive GO-63: Pavement Performance Monitoring Guidelines

- Consideration shall be given to scheduling longitudinal profile/texture measurements at a different time of the year from previous measurements. This is a prime consideration in frost regions where these measurements tend not to be performed in the winter due to practical budget considerations. It is suggested logistical plans be established so that economical “winter” longitudinal profile measurements on test sections are practical.
- Monitoring requirements for new experiments added to LTPP as specified in the planning documents, prior to them being formally issued in a LTPP directive.
- The plan for monitoring continuation after a test section has been overlaid, is approved by FHWA.

Without consideration for out close-out monitoring, and new SPS test sections, the following are desired measurement frequencies for all active LTPP test sections:

- Annual longitudinal profile and texture measurements.
- Distress measurements every two years.
- Deflection measurements every four years.

Maximum monitoring frequency intervals:

- Two year intervals between longitudinal profile/texture measurements.
- Three year intervals between manual distress surveys.
- Five year intervals between deflection measurements.

RSC shall contact FHWA three months prior to the time of when a maximum monitoring frequency interval on an active test section might be exceeded. This notification shall include plans to either address the deficiency or recommendations related to taking the test section out-of-study.

SPS-10 Experiment

Monitoring requirements for test sections included in the SPS-10 experiment, Warm Mix Asphalt Overlay of Asphalt Pavement Study, include measurements prior to construction, short-term, and long-term performance monitoring. The requirements are separate from those previously stated in this directive for other LTPP test sections, until a new construction treatment is applied to a SPS-10 test section which causes it to be assigned to a different experiment.

- Within six months prior to construction, manual distress survey, deflection measurements, and longitudinal profile/texture measurements shall be performed. If construction is delayed such that the first round of monitoring measurements fall outside the six month interval, another round of monitoring measurements shall be performed.
- Short-term performance monitoring measurements are those performed up to 19 months after completion of initial experimental test section construction activities. Longitudinal profile/texture measurements, deflection measurements, and manual distress survey measurements shall all be performed during each of the following time intervals after

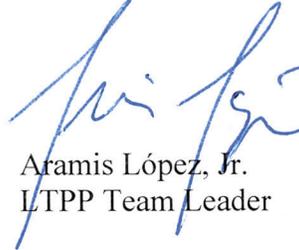
Directive GO-63: Pavement Performance Monitoring Guidelines

construction which correspond to the coring intervals specified in the SPS-10 Materials Sampling and Testing Guidelines.

- 0 – 30 days after construction. This corresponds to the $t=0$ time interval.
 - 3 – 6 months after construction.
 - 11 to 13 months after construction.
 - 17 to 19 months after construction.
- Long-term performance monitoring starts after completion of the last short term monitoring interval occurring up to 19 months after construction.
 - Longitudinal profile/texture and manual distress surveys. Desired interval is annually, maximum allowable interval is every two years.
 - Deflection Measurements. Desired interval between measurements is every three years, maximum allowable intervals is every five years.

Prepared by: TSSC

Approved by:



Aramis López, Jr.
LTPP Team Leader