

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program



Program Area:	Monitoring	Directive Number:	D-16
Date:	May 2, 2000	Supersedes:	N/A
Subject:	Distress Photographs Using Digital Cameras		

Photographs are an important component of LTPP manual distress surveys and, as such, they must be taken during each survey. To promote quality and consistency amongst the four regions, the following guidelines shall be followed, effective immediately, when taking photographs for manual distress surveys:

- Use digital camera meeting requirements specified in LTPP Directive GO-24: General Specifications for LTPP Digital Cameras or most current directive.
- Take *standard* photographs at the following six (6) LTPP test section locations:
 - Station 0+50 looking at station 0+00
 - Station 0+50 looking at station 1+00
 - Station 1+50 looking at station 2+00
 - Station 2+50 looking at station 3+00
 - Station 3+50 looking at station 4+00
 - Station 4+50 looking at station 5+00

All standard photographs shall be taken while standing at mid-lane of test section and may be taken in reverse order depending upon the location of the sun as long as each 100' station is captured.

For example,

If the photos are taken starting at the end of the section, the six standard locations would be:

- Station 5+50 looking at station 5+00
- Station 4+50 looking at station 4+00
- Station 3+50 looking at station 3+00
- Station 2+50 looking at station 2+00
- Station 1+50 looking at station 1+00

- Station 0+50 looking at station 0+00
- *Additionally*, photographs of unique distresses or distresses that are hard to distinguish must be taken; the number of photographs and their location is left to the discretion of the regional distress field supervisor.
- To the extent possible, the following photography guidelines shall be followed:

All photographs

- Photographs should be taken during sunny days, *whenever possible*; an overcast sky or haze layer will scatter sunlight, thus reducing the quality of photographs.

Additional photographs of unique distresses or distresses hard to distinguish

- Photographs of cracking distresses should only be taken between 9:00 and 11:00 a.m. or between 1:00 and 3:00 p.m. standard time, *whenever possible*. Photographs of non-distortion or texture distress types can be made between 9:00 a.m. and 3:00 p.m., but the 9:00 to 11:00 a.m. or 1:00 to 3:00 p.m. time intervals are preferred.
 - Distresses should be photographed from a direction facing the sun's rays to enhance the distress by capturing the shadow effect created by the sun.
 - A reference scale or marking shall be used in every photograph. If possible, standard reference scale manufactured for LTPP program should be used and it should be placed parallel to direction of the sun's rays so as to not cast a shadow over the distress being photographed.
- Photographs shall be saved in *.jpeg format at a resolution of 640 X 480 dpi or better. The following file naming convention shall be used:

MDPaannnnnsyyyy##.jpg

where:

MDP	=	fixed characters that indicate file contains Manual Distress Photograph (MDP).
aa	=	LTPP state/agency code (STATE_CODE).
nnnn	=	SHRP ID number (SHRP_ID).
s	=	annual survey sequence letter (visit identifier or code).
yyyy	=	year of survey.
##	=	photograph sequence number on survey day.
jpg	=	jpeg file format extension.

For example, MDP483739B200011.JPG represents jpeg file containing eleventh (##=11) photograph taken during second visit (s=B) of year 2000 (year of survey=2000) on test section 3739 (nnnn=3739) located in the State of Texas (aa=48).

Questions concerning this directive should be addressed to the FHWA LTPP staff member responsible for distress operations, with a copy to the LTPP Technical Support Services Contractor.

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