U.S. Department
of Transportation
Federal Highway
Administration

LTPP Seasonal Monitoring Program
Site Monitoring Suspension
Status Report
Section 510113, Danville
Virginia

Report No. FHWA-TS-96-51-06 **December 1996**

SMP SITE MONITORING SUSPENSION STATUS REPORT
VIRGINIA SECTION 510113

I. INTRODUCTION

The seasonal site 510113 near Danville, Virginia was installed on October 23 - October 26, 1995. Seasonal data was collected continuously from October 25, 1995 to October 24, 1996 (see Table 1). On October 24, 1996, all site suspension activities were completed at this site according to LTPP directive SM-8 "Suspension of SMP Site Monitoring Activities". The site will remain out of operation until the next round of testing which is tentatively scheduled for October 1997.

This report entitled "SMP Site Monitoring Suspension Status Report" details the suspension preparation activities, site specific conditions, and provides information pertinent to the seasonal site 510113.

II. SUSPENSION PREPARATION ACTIVITIES

The suspension preparation activities at site 510113 with the exception of a manual distress survey and transverse Dipstick® surveys were conducted during the final site visit on October 24, 1996. A manual distress survey of the entire section and transverse Dipstick® surveys were conducted on the August 22, 1996 site visit. PK nails were reconfirmed and replaced as necessary. The site paint marking did not need to be refreshed. On this day three sets of FWD tests, one set of elevations, and a distress survey of the instrumentation area were conducted. Water table measurements were performed in the morning and afternoon. The onsite datalogger was downloaded before being dismantled. Two sets of TDR traces were extracted by the mobile datalogger. It should be noted that a resistivity probe has not been installed at this site. Repairs to the instrument hole, trench, and surface temperature probe slot were not necessary.

The air temperature probe, tipping bucket, and the upper part of the support pole were dismantled. The lead wires from the air temperature probe and the tipping bucket were removed from the cabinet and sprayed with an anti-corrosive compound. The above ground conduit from the pole to the equipment cabinet was removed and the resulting hole in the back of the cabinet sealed. The bottom part of the support pole was cleaned and lubricated prior to installing the end cap.

After all the wires were disconnected from the control panel, the panel was detached from the equipment cabinet with the CR10 datalogger, terminal strip, and the battery pack attached to it. The TDR cables and MRC lead wires were sprayed with anti-corrosion compounds and sealed with desiccant packs in airtight bags. All cables were hung up high inside the equipment cabinet. After the last piezometer reading was recorded the pipe was

cleaned and sealed with grease. The access cover and seat were cleaned and lubricated before being covered and brought up to grade with native soil.

The Profilometer survey corresponding to the close-out was conducted on December 3, 1996.

All the necessary suspension activities were completed on October 24, 1996. The dismantled equipment was removed from the site. The suspended site contains all the underground instrumentation, equipment, and an equipment cabinet with all the cables. The equipment cabinet was locked before leaving the site. The site was cleaned and left in a condition such that the instrumentation could be easily accessed when site monitoring activities resume.

III. SPECIAL SITE CONDITIONS

The installation of site 510113 followed the "LTPP Seasonal Monitoring Program: Instrumentation Installation and Data Collection Guidelines". There were no irregularities associated with the installation of this site. It should be noted that this site has Campbell Scientific TDR probes installed as opposed to the FHWA manufactured probes.

IV. SUPPLEMENTAL INFORMATION

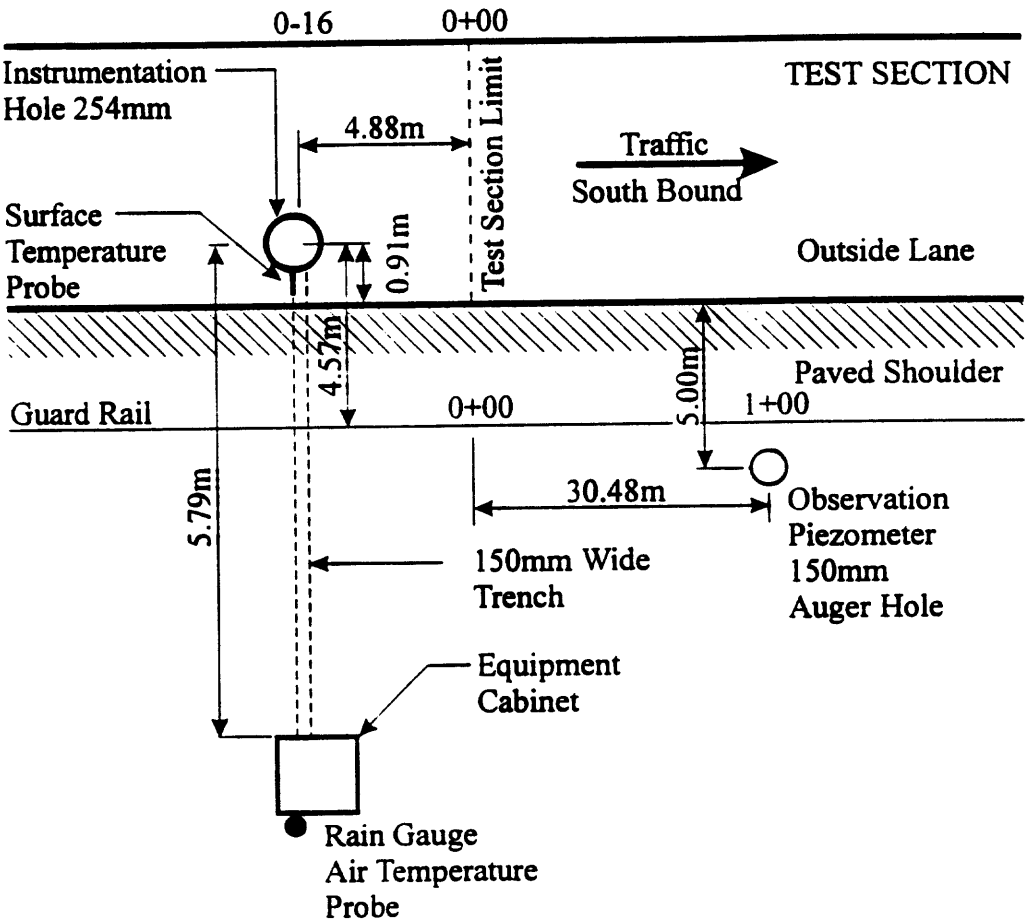
Figure 1 shows the locations of the installed instrumentation at the site. The instrumentation hole is at station 0-16 and the piezometer is at station 1+00. Table 2 gives elevations of the portion of Section 510113 that was used for elevation measurements. All offsets are from the PK nails found at the outside pavement edge.

At the time of suspension of the site there were no unresolved problems with any of the sensors. The plots from ONSFIELD, MOBFIELD, and SMPCHECK follow expected trends and produce expected values.

TABLE 1
SUMMARY OF ROUND TWO SMP DATA COLLECTION TO DATE

Agency Code [5 1]
LTPP Section I.D. [0 1 1 3]
Location Danville, VA

Test Date dd/mmm/yy	Visit Ident./ Code	ONSITE Data			MOBILE Data		Manual Data								FWD Data				Distress Data		Profile Data		Comments
		Pav Temp.	Ambient Temp.	Rainfall	Moisture (TDR)	Frost Depth (Resist.)	Backup Pav. Temp.	Backup Moisture (TDR)	Frost Depth 2 - point	Frost Depth 4 - point	Water Table	Surface Elev.	Joint Open.	Joint Fault.	Surface Layer Temp.	No. of Cycles/Visit OWP	ML	PE	Manual	PASCO	Profiler	Dipstick	
25-Oct-95	A	X	X	X	X						X	X			X	3	3						
29-Nov-95	B	X	X	X	X						X				X	3	3						
20-Dec-95	C	X	X	X	X						X				X	3	3						
24-Jan-96	A	X	X	X	X						X	X			X	3	3						
21-Feb-96	B	X	X	X	X						X	X			X	2	2						
20-Mar-96	C	X	X	X	X						X				X	3	3						
24-Apr-96	D	X	X	X	X						X	X			X	3	3		X		24-Apr-96	X	
15-May-96	E	X	X	X	X						X				X	1	1						
16-Jul-96	F	X	X	X	X						X				X	1	1						
22-Aug-96	G	X	X	X	X						X	X			X	1	1		X			X	
01-Oct-96	H	X	X	X	X						X												no FWD
24-Oct-96	I	X	X	X	X						X	X			X	3	3				03-Dec-96		Close-out



- Height of Air Temperature Probe: 3.18m
- Height of Tipping Bucket Rain Gauge: 3.20m
- Depth of Piezometer: 4.27m

Figure 1. Location of Seasonal Monitoring Instrumentation Installed at SPS 510113

Table 2. Surface Elevation Measurements

LTPP Seasonal Monitoring Study	State Code	[51]
Surface Elevation Measurements	Test Section Number	[0113]

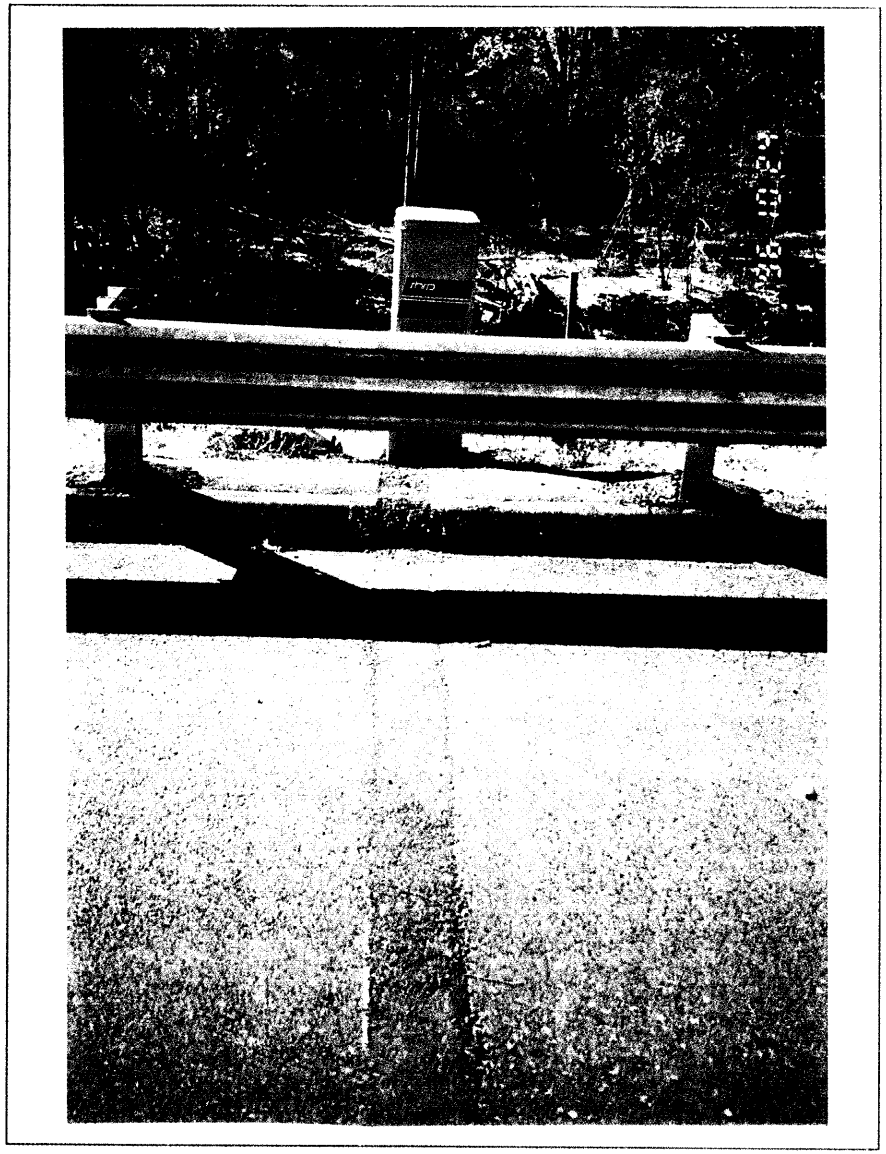
Survey Date	October 24, 1996
Surveyed By	DS
Surface Type	AC
Benchmark	Observation Piezometer - 1.000 meters - assumed

STATION	PE m offset 0.30m	OWP m offset 0.91m	ML m offset 1.83m	IWP m offset 2.74m	ILE m offset 3.35m
0-22	2.1550	2.1575	2.1675	2.1700	2.1750
0-16	2.1175	2.1175	2.1325	2.1325	2.1400
0-10	2.0875	2.0900	2.1000	2.0975	2.1075
0+00	2.0250	2.0250	2.0400	2.0400	2.0525
0+25	1.8750	1.8800	1.8950	1.9000	1.9100
0+50	1.7350	1.7375	1.7525	1.7550	1.7725
0+75	1.5850	1.5900	1.6100	1.6175	1.6300
1+00	1.4350	1.4450	1.4650	1.4725	1.4875
1+25	1.2900	1.3000	1.3200	1.3300	1.3450
1+50	1.1475	1.1550	1.1725	1.1825	1.1925
1+75	0.9975	1.0050	1.0225	1.0300	1.0450
2+00	0.8500	0.8600	0.8850	0.8900	0.9075

PE	Pavement Edge
OWP	Outer Wheel Path
ML	Mid Lane
IWP	Inner Wheel Path
ILE	Inner Lane Edge

Note: Offsets are measured from the PK nails at the outside of the pavement stripe at the pavement edge.

Equipment Cabinet, Seasonal Site 510113,
October 1996, After Suspension Activities



Instrumentation Trench to Equipment Cabinet,
Seasonal Site 510113, October 1996