SEASONAL MONITORING PROGRAM
DISMANTLE REPORT
SITE 040215, PHOENIX, ARIZONA.

January 1997

NICHOLS
CONSULTING
ENGINEERS, Chtd.

1885 S. Arlington Ave., Suite 111, Reno, Nevada 89509 Tel (702) 329-4955 Fax (702) 329-5098

NICHOLS CONSULTING ENGINEERS, Chtd.

1885 S. Arlington Ave. Suite 111 • Reno NV 89509 • ☎ (702) 329-4955 • FAX (702) 329-5098

MEMORANDUM

TO: Mr. Aramis Lopez, Jr.
Long-Term Pavement Performance Division
FROM: Srikanth S. Holikatti and Douglas J. Frith
DATE: January 31, 1997
SUBJECT: **Suspension of SMP Site Monitoring Activities, Site 040215**

This memo will serve as the SMP Site Monitoring Suspension Status Report for Site 040215 (04SD) near Phoenix, Arizona. This report narrates the activities associated with the suspension of SMP site monitoring.

The site was last monitored on August 21, 1996 and de-installation occurred at this time. The following activities were performed before suspension of SMP monitoring activities and dismantling of SMP instrumentation:

- FWD testing of the section.
- Elevation measurements.
- Ground water table measurements.
- Joint opening and joint faulting measurements.
- Automated mobile data collection.
- Downloading of Onsite data before dismantling the CR10 datalogger.

Longitudinal profile measurements were performed on August 12, 1996 using a K J Law profilometer.

The following pre-dismantle and dismantle activities were performed:

- The observation well and cap threads were thoroughly cleaned and lubricated (greased) before the well was sealed.

- The air temperature probe and rain gauge were disconnected from the steel pole and the pole was removed from the bottom joint. The pole stub, embedded in the ground, was cleaned and lubricated before capping.

- The instrumentation hole and access trench were both closely inspected and the joints were sealed with silicone sealant wherever necessary. No further patching was required.

- All TDR probes, thermistor temperature sensor unit cables and wiring were disconnected from CR10 datalogger. These were carefully checked and labeled. Labels on each cable were scotch taped to ensure they would remain in place.

- A coat of electronics grade anti-corrosive compound was applied to all the cables and wiring connections to protect against corrosion of contact points. The cables were then put in a heavy duty plastic bag and were taped to keep the elements out and were secured inside the equipment cabin.

- The instrument panel board containing the CR10 datalogger, the relay and the terminal strip was removed.

- The equipment cabinet was checked and adequate drainage was ensured in case of heavy precipitation.

- The equipment cabinet lock was lubricated with graphite lubricant, the lock was taped to keep out the natural elements.

- The deflection and elevation measurement locations were marked with white paint for easy identification.

- A layout sketch of the section indicating the location of instrumentation hole, observation well, equipment cabinet, joint opening measurement snap rings, FWD test points and elevation measurement points was drawn so that the site can be re-established easily upon return.

The instrumentation hole is located in the outside lane, at a distance of 155.84m (section station 5.00+11'), from the section beginning, in the outer wheel path. The equipment cabinet is located 9.6m to the right of the lane edge and the pole is 0.3m behind the equipment cabinet. The observation well/piezometer is located at a distance of 121.95m from the start of the section, 5.2m

away from the lane edge. Please refer to the site layout schematic for the testing and monitoring locations within the test section.

The following are enclosed with this report:

- A summary table of SMP measurements over the preceding data collection cycle following the standard format.
- Section layout schematic clearly showing the location of the instrument hole, observation well, equipment cabinet, joint movement snap rings, FWD and elevation measurement locations.
- Copies of photographs taken during the suspension and dismantle activities.
- TDR traces manually obtained just before the instrument panel board was dismantled

The summary table indicates that a complete set of measurements was recorded during each monitoring round as planned, with the exception of having no TDR traces in march. From the manual TDR traces and SMPCheck plots, it was observed that TDR sensor #10 at this SMP site was non-functional, the rest of the installed equipment appeared to be functioning properly at the time of de-installation.

No unusual or non-standard equipment or wiring was utilized on this site. However, it should be noted, that no resistivity probe was installed. Only a limited number of resistivity probes were supplied by FHWA and due to the climate, this site did not receive one.

Information in this report and its attachments are provided to document the SMP suspension and dismantle activities. Any further information about suspension/dismantle activities can be obtained by calling Nichols Consulting Engineers at (702)329-4955.

SH:DF/cac
Attachments

cc: Gonzalo Rada
Cal Berge

SUMMARY of SMP DATA COLLECTED to DATE.

Agency Code: 04, Arizona.

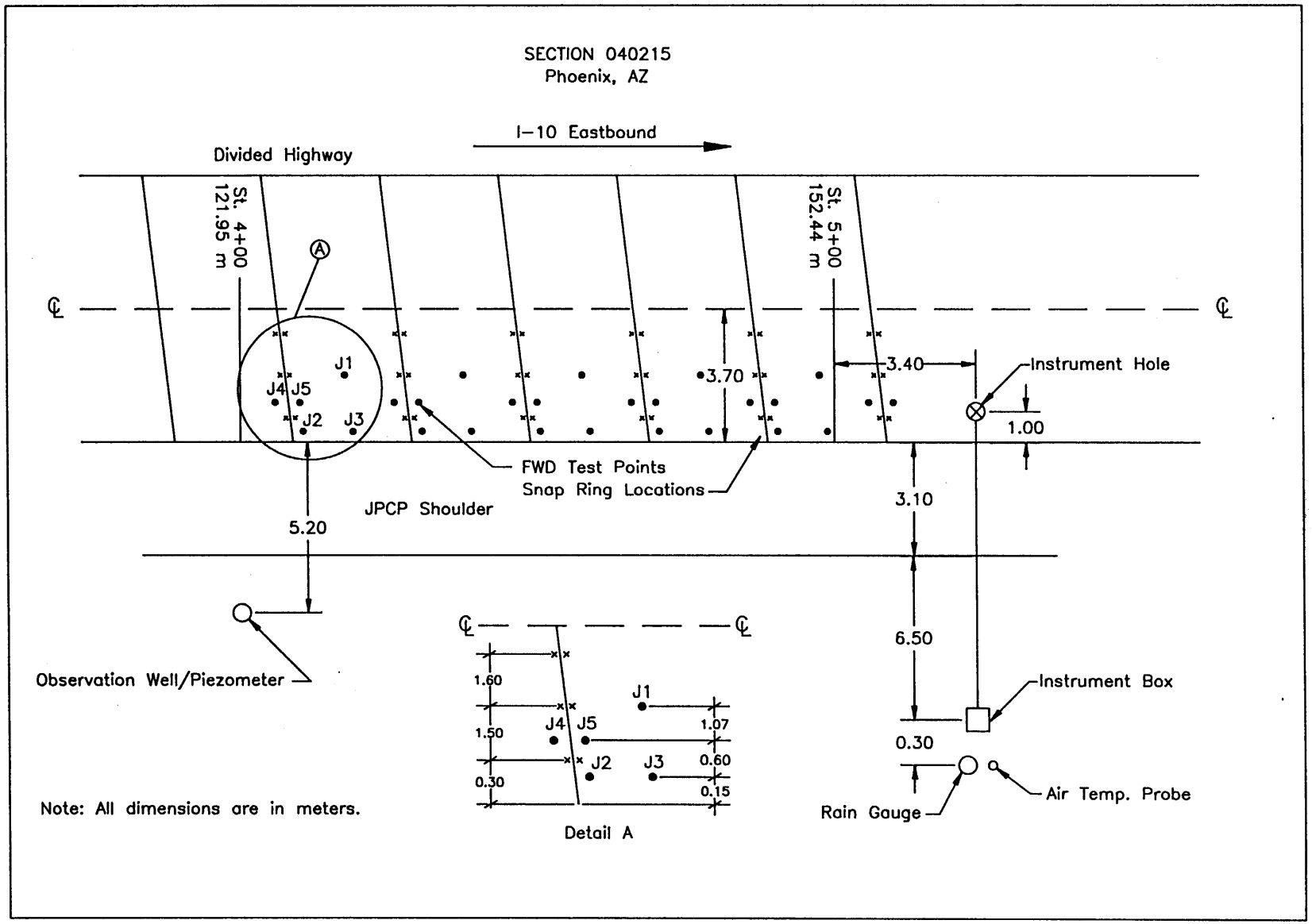
Location: Pheonix.

LTPP Section Code:0215.

Pavement Type: Portland cement concrete.

		ONSITE Data			MOBILE Data.		Manual Data						F W D Data				Distress Data		Profile Data		
Test Date dd/mm/yy	Visit Identity \ Code	Pav Temp	Ambient Temp	Precptn.	Subsurface Moisture (TDR)	Frost Depth 2-Point	Backup Pav Temp	Backup Moisture (TDR)	Water Table.	Surface Elev.	Joint Open.	Joint Fault.	Surface Layer Temp.	No. of Cycles/Visit. OWP	ML	PE	Manual	PASCO	Profiler	Dipstick	Comments
25-Aug, 95	NA	X	X	X		NA		X			X	X	X	3	3	3					Installation.
18-Sep, 95	A	X	X	X		NA		X	X		X	X	X	3	3	3	X				
16-Oct, 95	B				X	NA			X		X	X	X	3	3	3					
13-Nov, 95	C	X	X	X	X	NA			X	X	X	X	X	3	3	3	X				
11-Dec, 95	D	X	X	X	X	NA			X		X	X	X	3	3	3			X		
17-Jan, 96	A	X	X	X	X	NA			X		X	X	X	2	2	2					
12-Feb, 96	B	X	X	X	X	NA			X	X	X	X	X	2	2	2	X				
11-Mar, 96	C	X	X	X		NA			X			X	X	4	4	4					Bad TDR traces.
08-Apr, 96	D	X	X	X		NA		X	X	X	X	X	X	2	2	2	X				
14-May, 96	E	X	X	X		NA		X	X		X	X	X	3	3	3					
17-Jun, 96	F	X	X	X	X	NA			X		X	X	X	2	2	2					Trace #10 is Non-Typical.
22-Jul, 96	G	X	X	X	X	NA			X	X	X	X	X	3	3	3	X				
21-Aug, 96	H	X	X	X	X	NA		X	X	X	X	X	X	3	3	3	X		X		

Form: Datatrack, SMP.

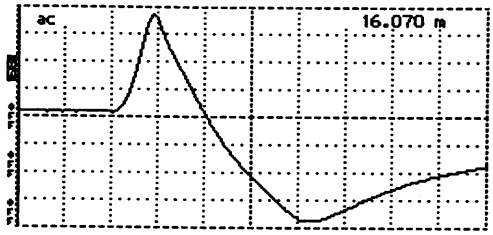

SECTION 040215
Phoenix, AZ
I–10 Eastbound
Divided Highway
St. 4+00
121.95 m
St. 5+00
152.44 m
A
J1
J4
J5
J2
J3
3.70
3.40
Instrument Hole
1.00
FWD Test Points
Snap Ring Locations
JPCP Shoulder
5.20
3.10
6.50
Observation Well/Piezometer
Instrument Box
0.30
Rain Gauge
Air Temp. Probe
1.60
1.50
0.30
1.07
0.60
0.15
Detail A
Note: All dimensions are in meters.

Cursor ..... 16.070 m
Distance/Div..... .25 m/div
Vertical Scale.... 50.0 mρ/div
VP 0.99
Noise Filter..... 1 avg
Power..... ac

Tektronix 1502B TDR
Date 8/21/96
Cable #1 040215
Notes Looks Good.

Input Trace
Stored Trace
Difference Trace

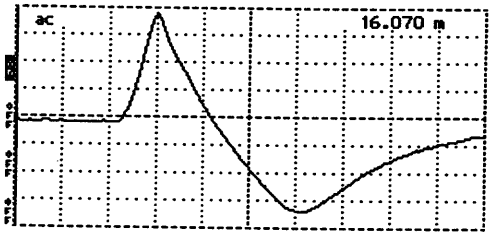
Cursor ..... 16.070 m
Distance/Div..... .25 m/div
Vertical Scale.... 45.9 mρ/div
VP 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/21/96
Cable #2 040215
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

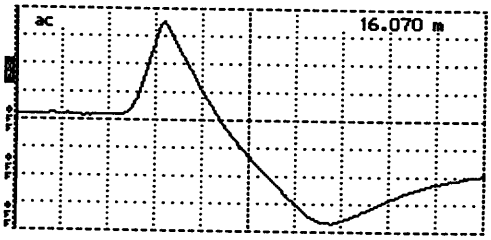
Cursor ..... 16.070 m
Distance/Div..... .25 m/div
Vertical Scale.... 45.9 mρ/div
VP 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/21/96
Cable #3 040215
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

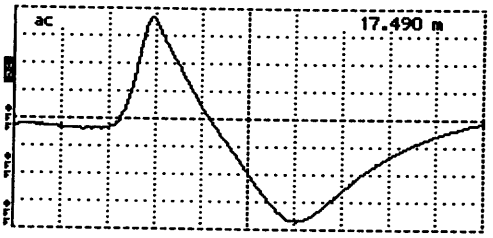
Cursor ..... 16.070 m
Distance/Div..... .25 m/div
Vertical Scale.... 50.0 mρ/div
VP 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/21/96
Cable #4 040215
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

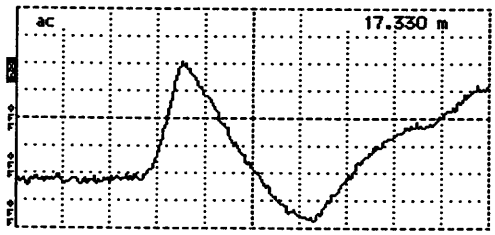
Cursor ..... 17.490 m
Distance/Div..... .25 m/div
Vertical Scale.... 35.4 mρ/div
VP 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/21/96
Cable #5 040215
Notes Looks Good

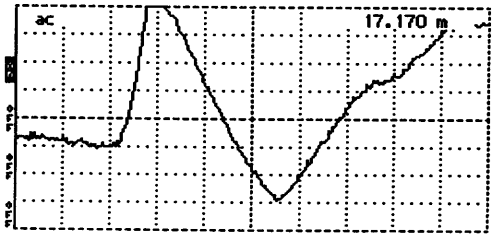
Input Trace
Stored Trace
Difference Trace

Cursor ..... 17.330 m
Distance/Div..... .25 m/div
Vertical Scale.... 4.46 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



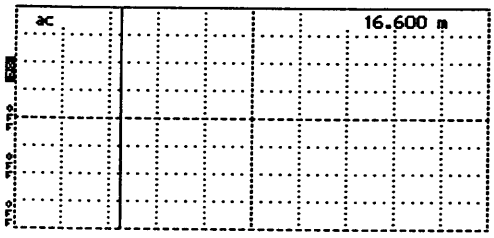
Tektronix 1502B TDR
Date 8/21/96
Cable #6 040215
Notes No Ant. TS Part won't Stay Steady.
Input Trace
Stored Trace
Difference Trace

Cursor ..... 17.170 m
Distance/Div..... .25 m/div
Vertical Scale.... 5.94 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



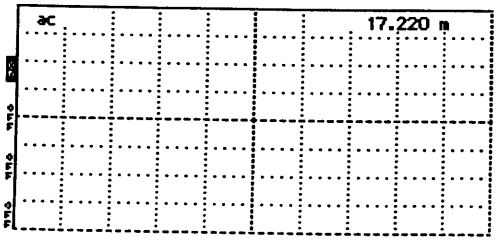
Tektronix 1502B TDR
Date 8/21/96
Cable #7 040215
Notes Needs Looking Into
Input Trace
Stored Trace
Difference Trace

Cursor ..... 16.600 m
Distance/Div..... .25 m/div
Vertical Scale.... 33.4 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



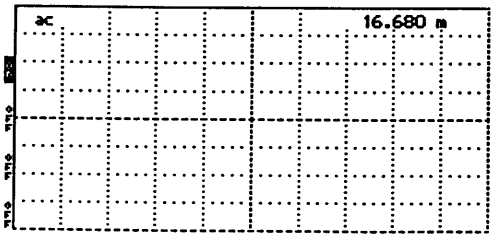
Tektronix 1502B TDR
Date 8/21/96
Cable #8 040215
Notes Can't Find Trace
Input Trace
Stored Trace
Difference Trace

Cursor ..... 17.220 m
Distance/Div..... .25 m/div
Vertical Scale.... 18.8 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/21/96
Cable #9 040215
Notes Can't Find Trace
Input Trace
Stored Trace
Difference Trace

Cursor ..... 16.680 m
Distance/Div..... .25 m/div
Vertical Scale.... 33.4 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/21/96
Cable #10 040215
Notes Can't Find Trace
Input Trace
Stored Trace
Difference Trace

Instrumentation Hole.

Observation Piezometer.

Taped Cable-ends.

Equipment Cabinet.