

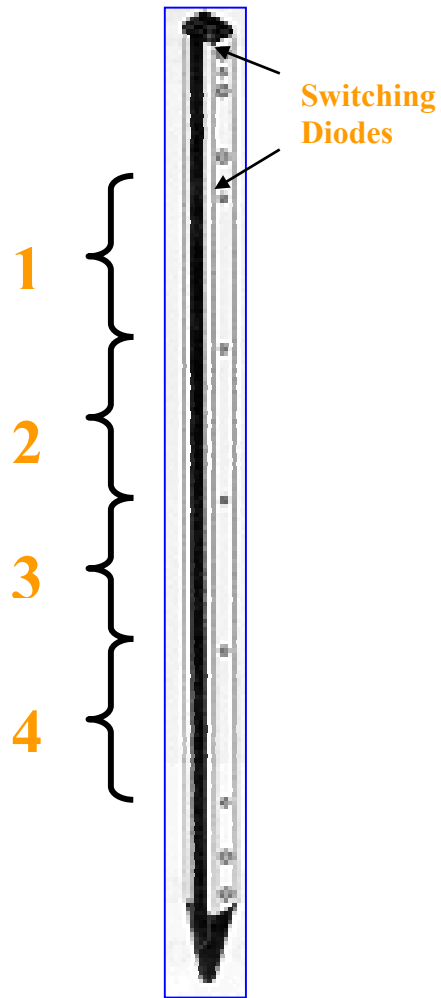
Multi-Segment Time Domain Reflectometry (TDR) probe
Environmental Sensors Inc. (ESI)

Measuring Dielectric
R/WIS Compatible

- 4 – probes (235.00 ea)
 - 1 – board (4400.00)
 - 1 – Cr10X (1400.00)
 - 1 – MDX 50 (450.00)
 - 1 AMIG/32 (400.00)
 - 1 – delay cable (45.00 ea)
 - 1 – insertion/extraction kit (92,000)
- Need AC power (at RWIS)

Total cost estimate \$8555.00

Recommend for new and reconstructed pavements



Frost Probes: Measures Frost Depth down to 8 feet

This system is recommended when retro-fitting to existing R/WIS stations.

Array of Single Waveguides

1. Time Domain Reflectometry (TDR)

2. Measures soil dielectric

3. R/WIS Compatible

4. System Hardware

12 – TDR waveguides (270.00)

2 – TDR multiplier (450.00)

1 – CR 10X (1400.00)

*1 – AM16/32 (Thermocouple) (400.00)

1 – TDR100 (4000.00)

5. Power requirements

a. (remote location, relayed to R/WIS) 12 VDC

6. Hardware cost estimate \$9490.00 + communication

7. Communication Hardware

1 – NL100 (500.00)

1 – Sc32A (200.00)

1 PS12LA (300.00)

8. **Total cost estimate \$10, 500

**** Assumes R/WIS RPU has either serial or Ethernet port available.**



TDR Waveguide

***Resistance Probe**

Measure resistance

R/WIS – N/A

Recommendations:

Mn/DOT Office of Materials.

Don't recommend using this for future installations

Photo unavailable at this time.