

Ground Penetrating Radar (GPR) Evaluation of I-85 Shoulders from MP 98 to MP 106 in South Carolina

Subsurface pavement structure evaluation on 8 miles of Interstate 85 between South Carolina and North Carolina, performed by Infrasense

([PRWEB](#)) December 18, 2017 -- Infrasense recently carried out a subsurface pavement structure evaluation on 8 miles of Interstate 85 between Gaffney, South Carolina, and Grover, North Carolina. To determine the thicknesses of the pavement structure layers, ground penetrating radar (GPR) was used in the field testing program which included continuous data collection along the right shoulder in each direction of Interstate 85, from milepost 98 to milepost 106. The data was collected at driving speed, so traffic flow was not disrupted. The deliverables for this project included continuous layer thickness information provided in tabular and graphical formats. The results will be used as part of a rehabilitation design effort, and to ensure the shoulders can support traffic that is redirected during construction.

The GPR equipment used for this survey included a 1GHz horn antenna and SIR-30 data acquisition system, both manufactured by GSSI of Nashua, NH. The 1GHz antenna is particularly well suited for pavement evaluations as it provides an optimum balance of resolution and depth of penetration. Using this equipment, and in-house analysis software, the GPR layer thickness results are typically within 10% of core thickness values.

Ground penetrating radar operates by transmitting short pulses of electromagnetic energy into the pavement using an antenna attached to a survey vehicle. These pulses are reflected back to the antenna with an arrival time and amplitude that is related to the location and nature of dielectric discontinuities in the material (air/asphalt or asphalt/concrete, reinforcing steel, etc.). The reflected energy is captured and may be displayed on an oscilloscope to form a series of pulses that are referred to as the radar waveform. The waveform contains a record of the properties and thicknesses of the layers within the pavement.

About Infrasense, Inc.

Since 1987, Infrasense, Inc. has applied advanced technologies to address the most difficult challenges in subsurface scanning. Infrasense's engineers nondestructively extract critical information from a diverse range of structures. In addition to providing ongoing subsurface evaluation services to clients across the country, the firm has also conducted numerous research programs to advance the field of subsurface detection and nondestructive evaluation. To learn more about Infrasense and the services we provide, visit our website:

<http://www.infrasense.com>



Contact Information

Lori McCormick

Infrasense, Inc.

<http://www.infrasense.com>

+1 (781) 281-1686

Online Web 2.0 Version

You can read the online version of this press release [here](#).