Infrasense uses GPR to Scan 26 Bridge Decks on I-355 in Illinois

Infrasense, Inc. recently performed a subsurface condition evaluation for 26 bridge decks on I-355 in Illinois. Ground Penetrating Radar (GPR) was used to provide an assessment of over 350,000 square feet of total area.

(PRWEB) March 09, 2016 -- Infrasense, Inc. recently completed ground penetrating radar (GPR) surveys of 26 bridge decks in Illinois. These surveys resulted in concrete deterioration and rebar depth quantities and maps.

Infrasense, Inc., a national leader in infrastructure nondestructive evaluations, recently completed ground penetrating radar (GPR) surveys to evaluate the condition of 26 bridge decks in Illinois. These bridge decks carry 3 to 4 lanes of traffic along I-355, and represent over 350,000 square feet of total area. The GPR surveys were carried out at driving speeds, so no closures were required and traffic flow was not disrupted.

The GPR surveys resulted in deterioration quantities and maps for each of the reinforced concrete bridge decks. The surveys also produced rebar depth contour maps for each bridge deck. The deck condition information will be utilized to prioritize and plan future maintenance and rehabilitation efforts.

Ground penetrating radar (GPR) data is collected at highway speeds to estimate rebar depth, corrosion conditions and deteriorated concrete. The GPR data is collected in a series of lines spaced 3 feet transversely across the width of the deck, with each line representing a cross sectional slice of the deck at a particular offset. Decks in good condition consist of strong and uniform radar reflections from the rebar. GPR data with weak and inconsistent reflections indicate rebar-level deterioration in the bridge deck. Infrasense uses software to analyze and map this data to provide comprehensive results for its clients.

Ground penetrating radar surveys provide transportation agencies with accurate and comprehensive bridge deck condition information, enabling effective preservation, rehabilitation, and replacement decisions. Traditionally, highway agencies have employed sounding (chain or hammer) to identify delaminated areas for project-level rehab. Although sounding has proven reliable, the labor and closures required for a sounding survey makes it prohibitive for obtaining data of a large number of decks. Also, sounding is not effective when there is an asphalt overlay. In response to these limitations, a number of highway agencies and private consulting firms have utilized alternative methods such as ground penetrating radar.

About Infrasense, Inc.

Since 1987, Infrasense, Inc. has applied the most current technologies to the most difficult challenges in subsurface scanning. Infrasense's engineers are able to nondestructively extract critical information from a diverse range of structures. The firm has conducted research to advance the field of subsurface detection, while also providing valuable information to clients across the country. Learn more about Infrasense, Inc. and its services at http://www.infrasense.com .

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