



# Complete Bridge Condition Assessment System

## BridgeScan™

[www.geophysical.com](http://www.geophysical.com)

BridgeScan™ is a complete, affordable GPR system that provides an effective tool for quickly determining the condition of aging bridge decks, parking structures, balconies and other concrete structures. The system is also used to obtain accurate concrete cover depth on new structures. With BridgeScan, repair costs can be estimated correctly, saving time and money.

### Typical Uses

- Bridge deck condition assessment
- Concrete cover depth on new structures
- Concrete inspection – locate metallic and non-metallic targets in walls/floors
- Measure slab thickness
- Void detection and location
- Inspection of other reinforced concrete structures

### Acquire Data

- Identify areas of deterioration inside reinforced concrete within bridge decks, parking structures, balconies, etc.
- Obtain accurate concrete cover depth and overlay thickness

### Deliver Results

- State-of-the-art SIR 4000 data acquisition system
- Convenient self-contained cart-based design
- Integrates easily with GPS

### Value

- Flexible system for concrete inspection and utility mapping applications
- Save money—Estimate structural condition accurately
- Two-year warranty



“Our research studies indicate that GPR is an efficient and cost effective tool to analyze bridge deterioration mapping and pavement analysis. When applied, it saves our clients time and money.”

*Brad Rister, University of Kentucky, Kentucky Transportation Center*

# BridgeScan Solutions

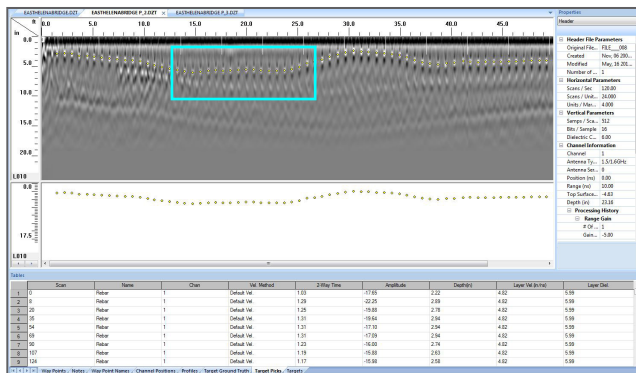
The American Society of Civil Engineers reported that as of 2013, approximately 25% of the nation's bridges remain structurally deficient or functionally obsolete (ASCE, 2013).

Traditional bridge deck inspection methods, like hammer soundings and chain dragging, rely on a person to interpret acoustical feedback to determine good and bad areas of concrete. Existing asphalt overlays must be removed prior to using these methods, and results vary depending on the operator's technique and interpretation of results. Assessment data normally consists of areas of the deck marked simply good or bad.

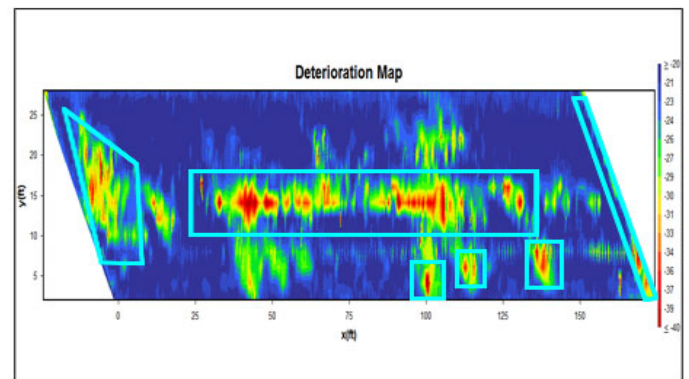
The application of GPR provides accurate condition assessment of bridge decks as well as other reinforced concrete structures. Hundreds of bridge decks have been evaluated using GPR.

## Bridge Deck Condition Assessments

Engineers and transportation professionals need a reliable method to collect quantitative data on bridge decks. GSSI's BridgeScan is designed for bridge condition assessment, providing for accurate representation of the bridge data by automatically accommodating for bridge skew angle.



Data illustrates the depth and location of bridge deck reinforcement. Area highlighted with blue box indicates area of deterioration. GPR data processed in RADAN.



GPR data that is post processed with third party software to create a deterioration map.

### System Includes

#### Control Unit Specifications

Internal Memory	32 GB
Display	Enhanced 10.4" LED display
Battery	Inspired Energy Ni204ED, 3 hour run-time
Ports	RS232, USB, HDMI
Environmental	Water-resistant

- \_\_\_\_ SIR 4000 control unit
- \_\_\_\_ 1600 MHz
- \_\_\_\_ Survey cart with encoder wheel
- \_\_\_\_ 2 meter control cable
- \_\_\_\_ 2 batteries
- \_\_\_\_ Battery charger
- \_\_\_\_ Custom transit case for control unit
- \_\_\_\_ AC adapter
- \_\_\_\_ Sunshade
- \_\_\_\_ User manual

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