



The services of Eisenbraun & Associates feature the technology of the Leica ScanStation 2 Laser Scanner. The benefit to the client is that data can be collected in an ultra-fast, highly accurate manner. The spatial data is used to create realistic, easy-to-understand 3D models of any object or space.

**High speed laser** measures a structure exactly as it exists, capturing data without making physical measurements.

**Millions of survey points** are now captured in less time than it takes for 100s of points using conventional equipment.

**Detailed 3D point cloud** created from multiple scans from different vantage points of a site; then used for making traditional CAD drawings, 3D CAD models or virtual fly-through animations.

**High Resolution Photography** also obtained by the scanning system: full dome, 360-degree images

**For indoor and outdoor use**, in all light levels – even total darkness

Eisenbraun & Associates is a regional surveying and engineering firm with a history of being a leader in early adoption of innovative technology. Established in 1976, the firm's owners and personnel are committed to excellence in the profession by providing quality technical service to each client.



**Daniel Eisenbraun**

is President of Eisenbraun & Associates and has provided leadership to the firm since its inception. A graduate of the SD School of Mines & Technology in Civil Engineering, he is a Licensed Professional Engineer in SD, NE, and MN and a Licensed Professional Surveyor in SD, MO, CO, and MN.



**Brett Kennedy**

is the Director of Surveying Services for the firm. He is a graduate of Southeast Technical Institute in Milford, NE, and is a Licensed Professional Surveyor in SD, ND, NE, IA, CO, MN, and KS. He is also a Certified Federal Surveyor.

*Eisenbraun & Associates*  
Professional Engineers & Surveyors

High Definition Surveying  
using 3D Laser Scanning

*Eisenbraun & Associates*  
Professional Engineers & Surveyors

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**Innovative solutions ♦ Long-term value**

Fast, Comprehensive,  
Accurate & Reliable data

# HIGH DEFINITION 3D LASER SCANNING

When you need measurements to be fast, accurate and comprehensive, depend on Eisenbraun and Associate's high definition surveying technology.

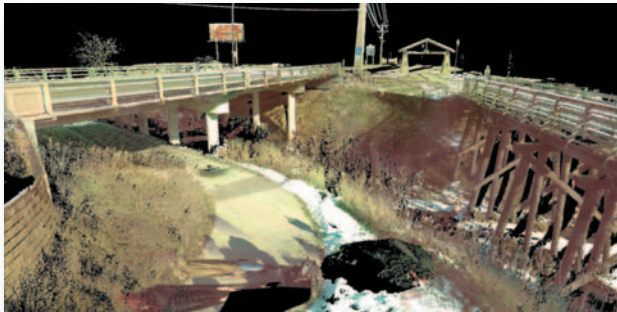
Now you can utilize high-speed, 3D laser scanning to capture all pertinent data from a crime scene, historic structure, a building being renovated, roadway or other infrastructure project.

## What sets high definition laser scanning apart from traditional surveying methods?

Skilled surveyors will use a high speed laser to capture millions of survey points in a much faster time than traditional surveying methods. Multiple scans from different vantage points of the site are then expertly registered into a single 3D point cloud. The end use can be the creation of traditional CAD drawings, 3 dimensional CAD models, or virtual fly-through animations.

## USES OF HIGH DEFINITION 3D LASER SCANNING

**Structural surveys and infrastructure mapping can be safely accomplished – with great detail.** This is especially effective in road and bridge surveys with high traffic volumes. The area can be surveyed without entering traffic lanes or other hazardous areas.



## Data from historical buildings can be preserved.

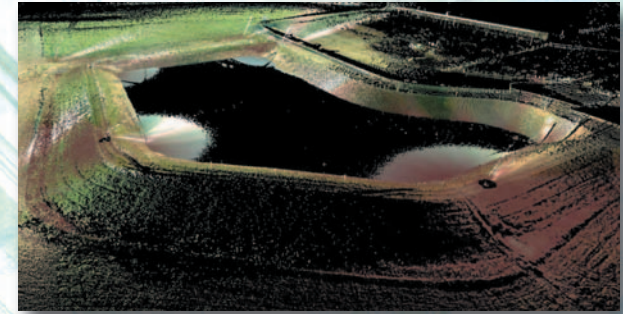
Complete record documentation can be captured and archived by surveying buildings and historic landmarks of all sizes, both inside and outside. HD Scanning is ideal for projects where massive amounts of data can be accurately and rapidly collected. Full dome 360-degree high resolution digital photographs are also obtained by the scanning system.



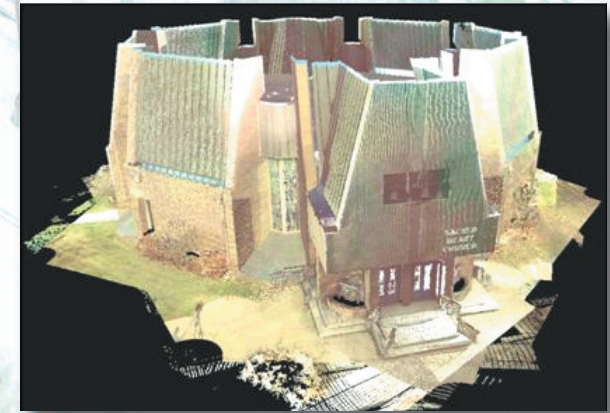
**Forensic investigations can be enhanced.** Surveyors will use a high speed laser to measure a scene exactly as it is found by the first responders; there is no need to disturb any evidence since the data can be captured unobtrusively without having to touch anything. This simulated crime scene is photography combined with a point cloud.



**As-built surveys and drawings can be used to obtain volumes and quantities - quickly - in the field.**



**Architectural Design Surveys can be created for buildings that are to be renovated, remodeled or expanded.** This point cloud of a uniquely-shaped church consists of 91 million survey points. Data collection is precise; every detail of the building will be captured.



*Eisenbraun & Associates*  
Professional Engineers & Surveyors