

# 3D Laser Scanning

3D Laser Scanning System (3DLSS) offers many benefits to the measurement professional, and also to the recipients and users of accurate spatial information. 3DLSS allows for the effective and safe completion of surveys of inaccessible, complex and irregular shaped structures. PS&S can provide significant cost savings in many ways; lower cost as-built & topographic surveys, reduction or elimination of costly "return visits" to the site, reduced facility downtime, fast unobtrusive scene capture, minimal field fit-up, field fabrication, and field rework thanks to accurate as-builts. No other technique can capture the level of detail; provide a high degree of accuracy and confidence as 3DLSS. Combining these attributes creates a model suited for all tasks requiring reliable existing conditions data.

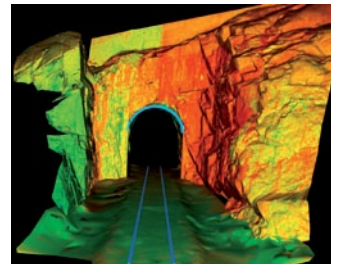


## Benefits of 3D Laser Scanning

- 1 Rapid comprehensive spatial data capture
- 2 Lower cost as-built/existing conditions survey
- 3 Reduction or elimination of return trips to field
- 4 Safe/unobtrusive scene capture indoors and outdoors
- 5 CAD models of the actual on-site conditions
- 6 Scan to BIM services

## PS&S 3D Laser Scanning Services

- Laser scanning and surveying
- 2D drawing creation, plans, elevation and section views
- Validation of existing drawings or models
- 3D modeling
- Pre-project planning
- Pre-scan support services
- Computer animations and rendering
- Application implementation assistance and application training
- Web-based data publishing



For more information on 3D Laser Scanning, please contact

**Keith Christensen at [kchristensen@psands.com](mailto:kchristensen@psands.com) or 732.584.0407.**

# 3D Laser Scanning Applications

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## Civil & Infrastructure

- Road and rail surveys
- Volume calculations
- Tunneling
- Topographic surveys
- Monitoring

## Building & Heritage

- 3D models
- 2D drawings
- Facade and ground plans
- Asset management
- Full color visualization

## Industrial & Plant

- Accurate As-Built
- Intelligent 3D CAD
- Clash detection
- Retrofit and maintenance
- Design engineering

## Construction

- Construction monitoring
- As-Built drawings
- Build archive

## Other

- Forensics
- Public Outreach/ Presentation
- Operation planning
- Archeology
- Animation

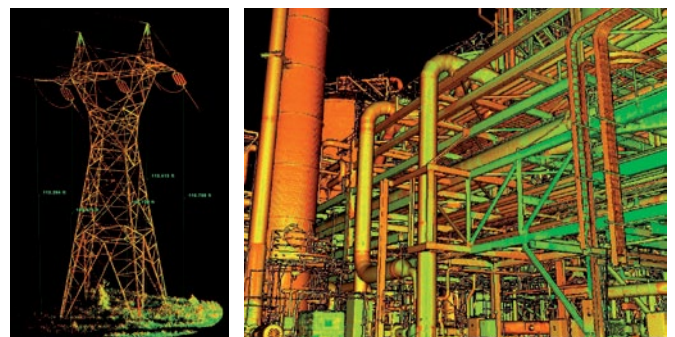
# Why Choose PS&S for 3D Laser Scanning

Our 3DLSS team includes licensed surveyors, architects and engineers that offer cost-effective data capture solutions. We work closely with clients to identify design and construction requirements, recommend survey approaches and develop deliverables that best meet their needs whether it is a measurable point cloud, 2D plan, surface mesh model or a BIM-ready spatial model. We continue to assist the client in their use of the data for early identification of design and construction conflicts.

## PS&S 3D Laser Scanning System includes:

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- Trained professionals in capture, processing and modeling of 3D Spatial Data
- Leica Scanstation C10 time of flight laser scanner
- Spatial data capture at a rate of 50,000 pts/sec
- Range of 2m-300m, maintaining spatial accuracy of +/-6mm
- 3D Geometry of entire structures can be captured in minutes
- The latest scan processing software for processing, evaluation and modeling with export to familiar CAD software, i.e. Microstation, AutoCAD and Scan to BIM



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