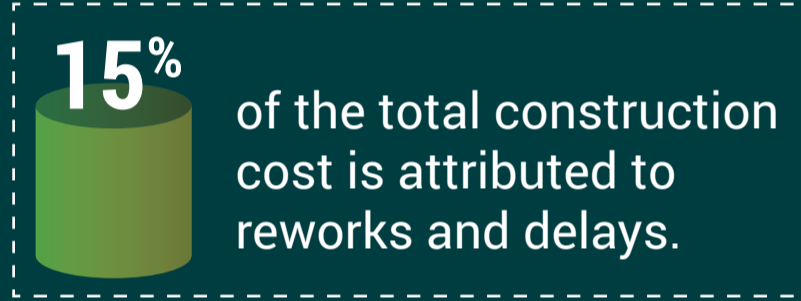


# Point Cloud to BIM Modeling

## Creating Comprehensive, Accurate As-built Models of Renovation Buildings

Renovation projects lean heavily on as-built drawings which, many a time are inaccurate and incomplete. If these inaccuracies flow un-noticed into the design process, construction disasters are inevitable.



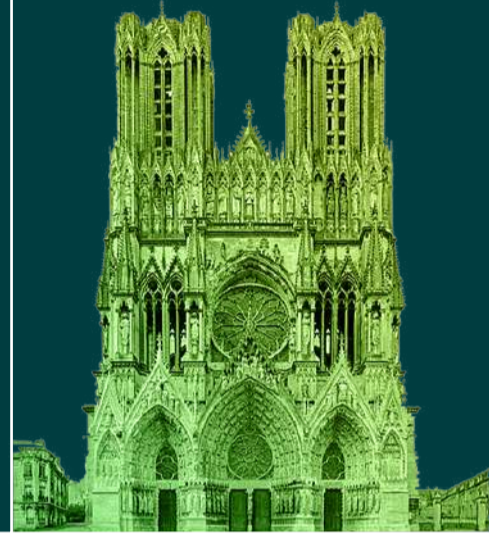
## Common building renovation challenges

- Cluttered field sketches, blurry or wrong angle photos, and wrong field dimensions
- High number of site visits to close information bottlenecks
- Absence of visualization into scope of work
- Inaccuracy and incompleteness of legacy 2D drawings
- Delays due to missing information



## Story of the Notre Dame Cathedral

In 2019, the Notre Dame Cathedral caught fire and lost its spire and much of its roof. The original drawings of the 800-year-old structure were difficult to find. Thanks



to Andrew Talon, late American Historian, an incredibly accurate point cloud model of the cathedral is available. The Point Cloud model is now pivotal to renovating the historic cathedral.

Cost savings of around **40%**

**99%** Accuracy in design-to-construction delivered by **Scan to BIM**



## Benefits of Scan-to-BIM in renovation projects for architects & contractors

Improved data capture at reduced costs >>> **Cost savings**

Reduced site visits >>> **Lower travel costs + reduced onsite risks**

Accurate Point Cloud capture >>> **High design precision**

Point Cloud views & photo augmentation >>> **Enhanced visualization**

High quality scan to BIM models >>> **Accurate workflow planning & structural documentation**

Up-to-date schematics >>> **Risk mitigation during execution**

## Scan to BIM Success Stories

Hitech CADD Services creates clash-free coordinated 3D BIM model from Point Cloud Scans of a College Backyard in the UK in 20 days. Models were in LOD 300.

### Business Impact

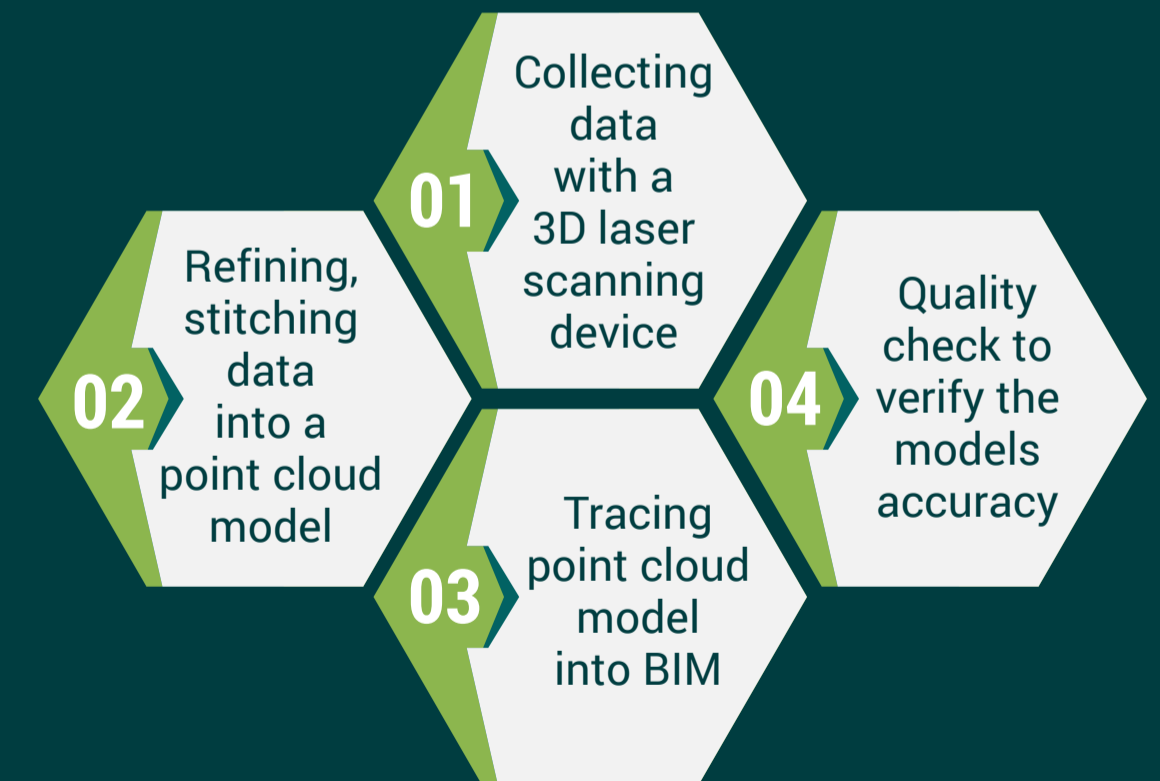
- Enabled informed decision making
- Reduced renovation costs
- Risk mitigation through geo-spatial data
- Digital design documentation eased document sharing process

CAD drawings created from drone-captured scanned data simplify digging operations for a mining site in France.

### Business Impact

- Project streamlining
- Accelerated pace of project
- Compliance with all standards
- Safe workflow

## 4-step Scan-to-BIM process



## Software

