Building Information Modeling (BIM) is the development and application of a multi-dimensional model to simulate the construction and operation of a facility. The model is a data-rich, object-oriented, intelligent and parametric digital representation of the project, from which user-specific views and data can be extracted and analyzed to generate information useful in making decisions and improve the project delivery process.

3D Laser Scanning
3D laser scanners capture geospatial information of the scanned environment and deliver the coordinates of thousands of points in the scene called “point cloud”. 3D laser scanners are employed in the Architecture, Engineering, Construction, and Facilities Management (AEC/FM) industry for condition assessment, as-built documentation, historic preservation, earth moving calculations, construction dimensional quality control, progress monitoring, and as-built modeling.

3D Laser Scanning for Architects/Engineers/Contractors
- Accurate 3D surveying
- Fast and automated as-built documentation of the project
- Comprehensive record of the ongoing project/existing facility as-built condition in a virtual environment
- Avoiding reworks and project delays by accurate integration of existing condition into the design process
- Accurate earthmoving calculations
- Streamlined planning and coordination for infrastructure renovation and retrofit projects integrating and coordinating the proposed design with the existing condition
- Avoiding reworks and project delays by accurate integration of existing condition into the design process
- Delivering accurate as-built models to the owner after project completion

BIM and 3D Laser Scanning for Owners/Facilities Managers
- Fast and automated as-built documentation of the facility
- Comprehensive record of the building/infrastructure assets as-built condition in a virtual environment
- Ability to independently verify the as-built models delivered by contractors
- Streamlined planning and coordination for infrastructure renovation and retrofit projects
- Accurate geometric as-built documentation for space management during operation
- Reliable as-is spatial information for routine facility operation and maintenance
- Coupled with Tablet PCs, provides onsite access to components information in digital format
- Spatial inspections (clearance requirements) in a virtual environment
EnTech BIM and 3D Laser Scanning Services

EnTech Engineering P.C.
provides Building Information Modeling (BIM) services, for Architecture, Structural, Infrastructure and MEP in multi-dimensional modeling, serving as your one-stop BIM solution for design, construction management, and building lifecycle management. EnTech’s experienced team of engineers and IT specialists provide state-of-the-art BIM services using off the shelf software like Revit—Architecture, Structures, & MEP, Microstation (Bentley), Tekla, Civil 3D, Archi-CAD, Navisworks, and Digital Project. EnTech BIM services are in compliance with established and developing standard specifications of government agencies in the NYC Metropolitan area including NYCSCA, MTA, DASNY, CUNY, and the US Army Corps of Engineers.

EnTech Engineering P.C. has extensive experience in professional implementation of 3D laser scanning technology. 3D laser scanning coupled with BIM helps the project team to capture as-is condition of existing facilities and coordinate it with new design or renovation. The technology also serves owners of old structures and facilities as an effective tool by capturing a comprehensive record of the as-built condition for historic preservation purposes. EnTech offers all in one 3D laser scanning solution and provides a wide range of services, including scanning, point cloud data processing, developing as-built models, integrating and coordinating the new design with the as-built model. Depending on the client’s needs and requirements, the final deliverable of our services ranges from registered point cloud data, as-built 2D or 3D CAD model, and ultimately a fully coordinated BIM that includes both geometric and semantic information of the project. We provide the model in different BIM authoring platforms that suits our clients’ technical needs.

3D Visualization
4D Simulation
Spatial Coordination
BIM-based Cost Estimate
2D to 3D Conversion

Infrastructural
Architectural
Structural
MEP

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