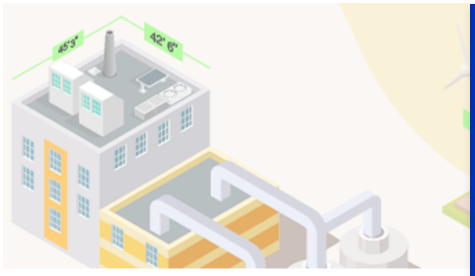

VTS
VIRTUAL TECHNOLOGY SIMPLIFIED

360PRO

PROJECT CASE STUDY

CLIENT: MCDEAN ELECTRICAL CONTRACTOR

COMPLETED DATE: 2020

"Thousands of dollars were saved on design, planning & clash detection with virtual site access. The quality of the 3D model was a key differentiator for the contractor to demonstrate the quality of work. "

Jeff Meredith, VTS Project Director

MANUFACTURING PLANT MEP AVOIDS COSTLY CLASHES

SITUATION

A pharmaceutical manufacturing plant in North Carolina was undergoing an expansion of the facilities. A digital twin was created to assist in the integration of the existing MEP infrastructure with the redesign. Data from the scans was converted into a Revit model that was used by design, engineers and contractors to ensure that the old & new designs integrated.

CHALLENGE

The existing electrical and mechanical infrastructure needed to integrate with the new needs of the plant. Routing of the newly designed systems would have to be implanted without clashing with existing systems that were in place.

360Pro crews did a series of terrestrial laser scans of the plant to create a point cloud. This point cloud was then used to create a Revit model. Engineers were able to import the 3D model into their ecosystem and software, which enabled them to map and route the new electrical systems within the existing infrastructure. The model enabled multiple trades including electrical, plumbing and HVAC to design, plan and run test scenarios virtually.

WIN

Integrating the old and new mechanical systems saved thousands of dollars and greatly reduced the risk of clashes, delays and rework. Using the 3D model, plant engineers, technicians and project managers saved time and reduced site visits with virtual access to measurements and dimensions. Due to the accuracy of the model, materials were ordered to specifications and delivered to the site ready for install. After using the model for client presentations, the property owner utilized it for recording assets.