CLASH DETECTION/ PREFABRICATION

3D laser scanning captures as-built site conditions with a high level of precision: helping to identify potential clashes, fabricate components, and plan a flawless installation. Information can be shared with other teams to ensure everyone is on the same page and can coordinate their work effectively. This saves time, money and headaches, by preventing costly modifications in the field.

CASE STUDY: CLASH DETECTION/PREFABRICATION

TASK:

Field verification to prefabricate ACM panels.

PROJECT APPLICATION:

Our client specializes in installing exterior envelope systems for commercial and industrial buildings. On this project, they were installing ACM (Aluminum Composite Material) panels to the canopy of a newly constructed airport terminal.



PROBLEM

- The construction plans did not match the existing conditions at the site. A deviation could cause a major issue. The installation process needed to be precisely planned to avoid rework.
- The shape of the canopy was complicated and stood 65 feet in the air. The client needed field verification and a plan to expedite proper installation of the panels.
- They were working overhead in a lift. There was no room for trial and error. The client was not interested in hanging panels, discovering issues, and having to take them back down.



SOLUTION

- The Project Manager conducted a site walk to devise a plan for the client.
- The canopy and curtain wall of an airport terminal were 3D laser scanned to capture precise as-built data and generate a 3D model and 2D drawings to facilitate ACM panel installation.
- 22" x 34" 2D CAD drawings were created with the panel layout for the client to take to the field. The panels were labeled with a custom number and included cut and shim points.



BENEFITS

- Laser scanning obtained exact measurements for the client and took away any guesswork from this project.
- To circumvent the active construction site, the Project Manager scanned the site at night to eliminate movement and trades working.
- The client was able to fabricate components offsite and plan a flawless installation.

CONTRACTING GPRS TO DO A 3D LASER SCAN HAS BEEN ONE OF THE BEST PROJECT DECISIONS WE MADE. WITH THEIR HELP WE WERE ABLE TO REDUCE COST, INCREASE PRODUCTIVITY, AND DELIVER THE PROJECT ON TIME.

VINCENT M. | SUPERINTENDENT







