CS20921 - Model-Based Layout and Quality Assurance with BIM360 and iCON Robotic Total Stations

Andy Leek AIA, LEED AP, CM-BIM

VDC Director

Brett Kostial

VDC Sr. Coordinator

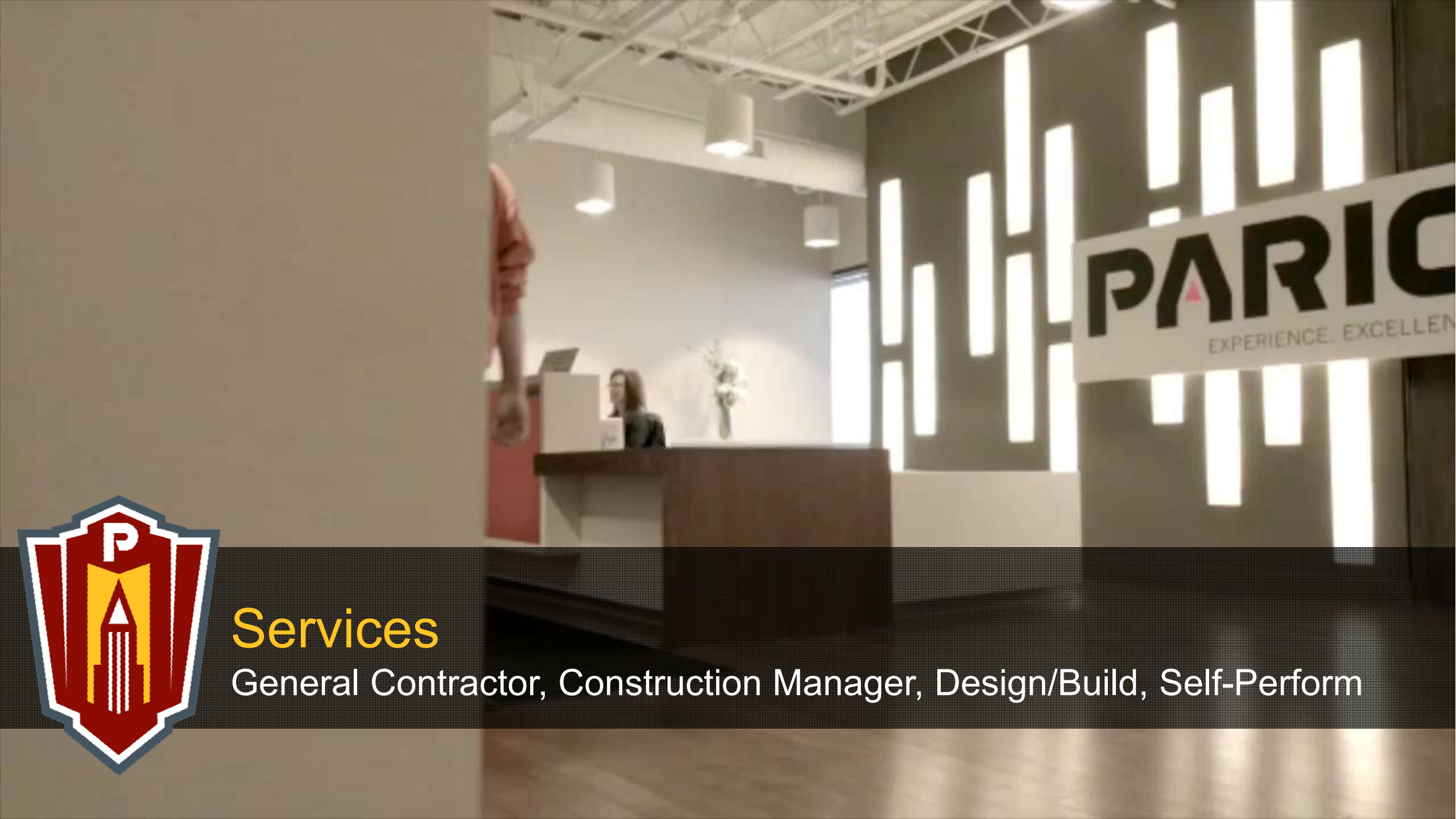
Class summary

- Construction productivity issues can be addressed with solutions such as BIM-to-Field workflows. Yet with so many tools available, defining a process must evolve quickly. This session will demonstrate how PARIC utilizes integrated technology to streamline office-to-field workflows, that increase accuracy and reduce production timelines. We will demonstrate how a broad set of tools are used to collect data, integrate teams, and coordinate work both in-the-field and from the office.
- In addition to reviewing best practices, we will provide a sample workflow to capture “real world” data with Leica iCON robotic total stations, laser scanners, and 3DR drones. Then we will discuss how to process this data for use in virtual coordination and logistics, then route it back to the field for construction purposes.
- AIA Approved

Key learning objectives

At the end of this class, you will understand how to:

- Use reality capture technology to inform project logistics, BIM coordination, and building layout practices
- Leverage Revit models to create layout points
- Share data from office-to-field in a seamless workflow
- Establish best practices for establishing project site controls
- Layout and round-trip as-built data
- Benefit from an integrated approach to technology



Services

General Contractor, Construction Manager, Design/Build, Self-Perform

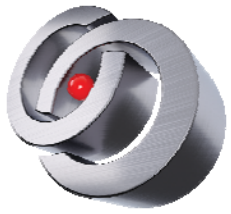
REALITY / VIRTUAL / REALITY

Hardware

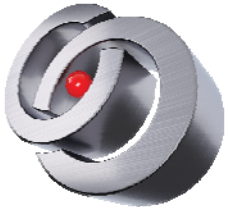
AUTODESK NAVISWORKS

Software

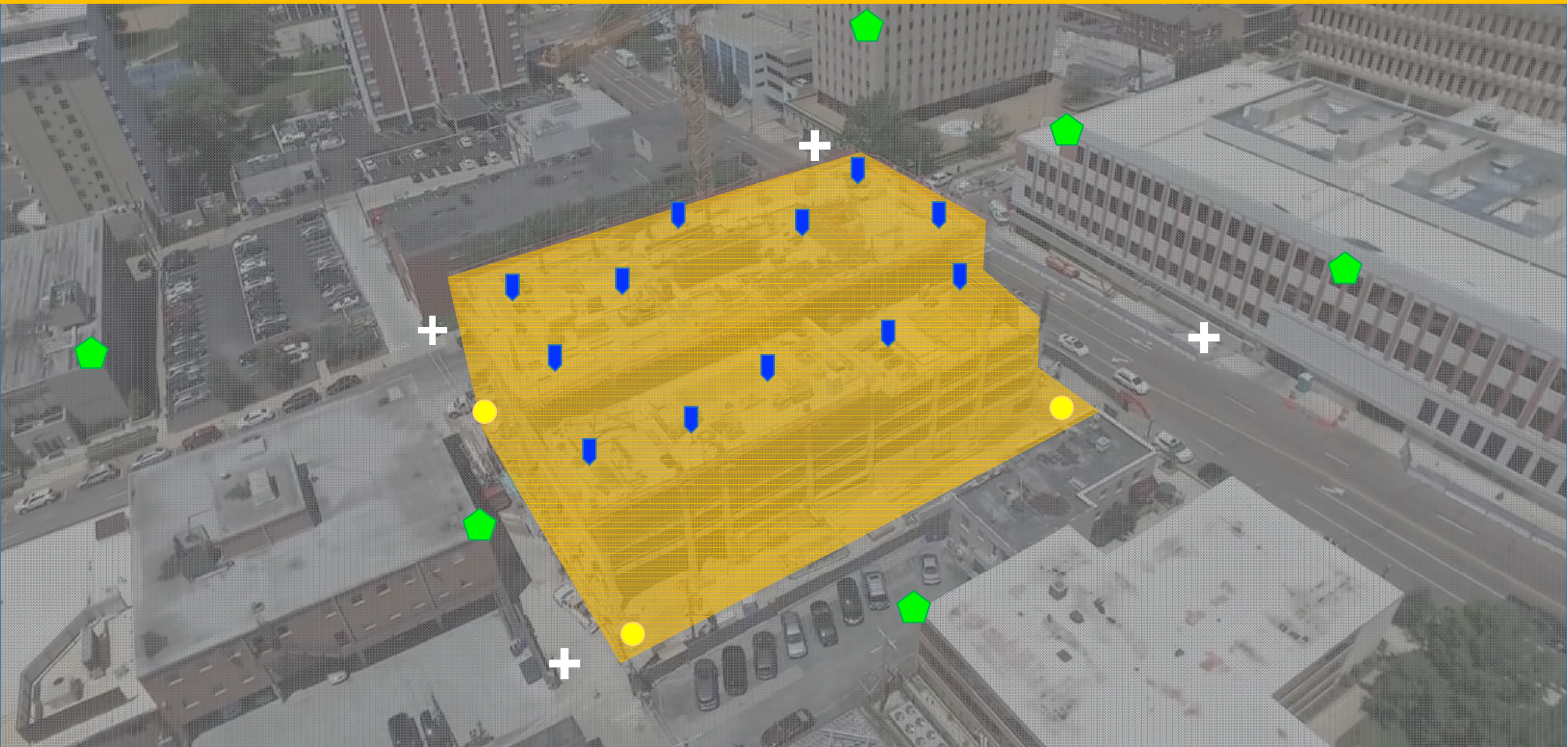
Dynamo



REALITY / VIRTUAL / REALITY



Data Capture – Project Controls



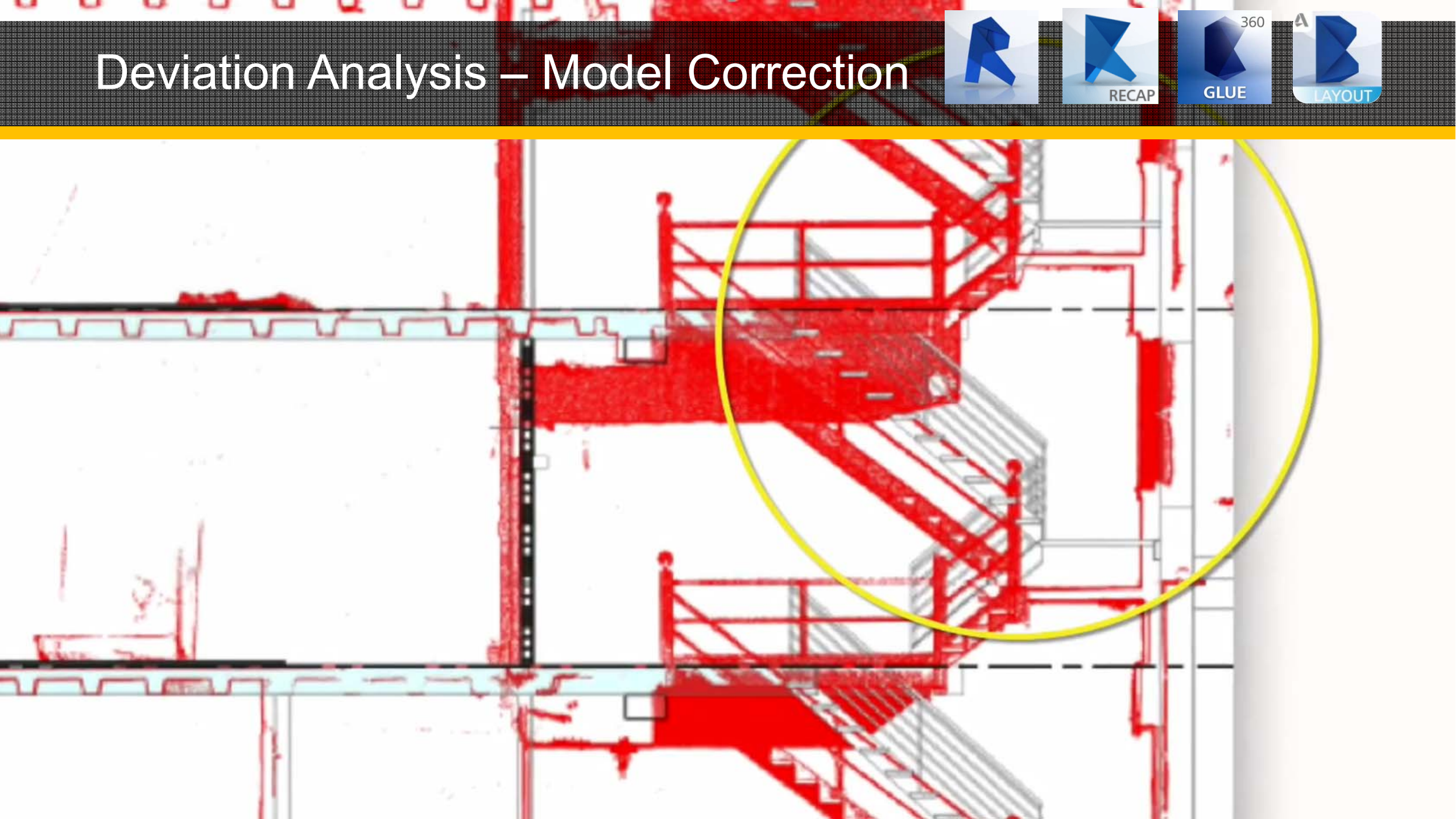
Data Capture – Control for Scanning

Data Capture – Aerial Scanning

Logistics - Planning

Logistics - Examples

Deviation Analysis – Model Correction

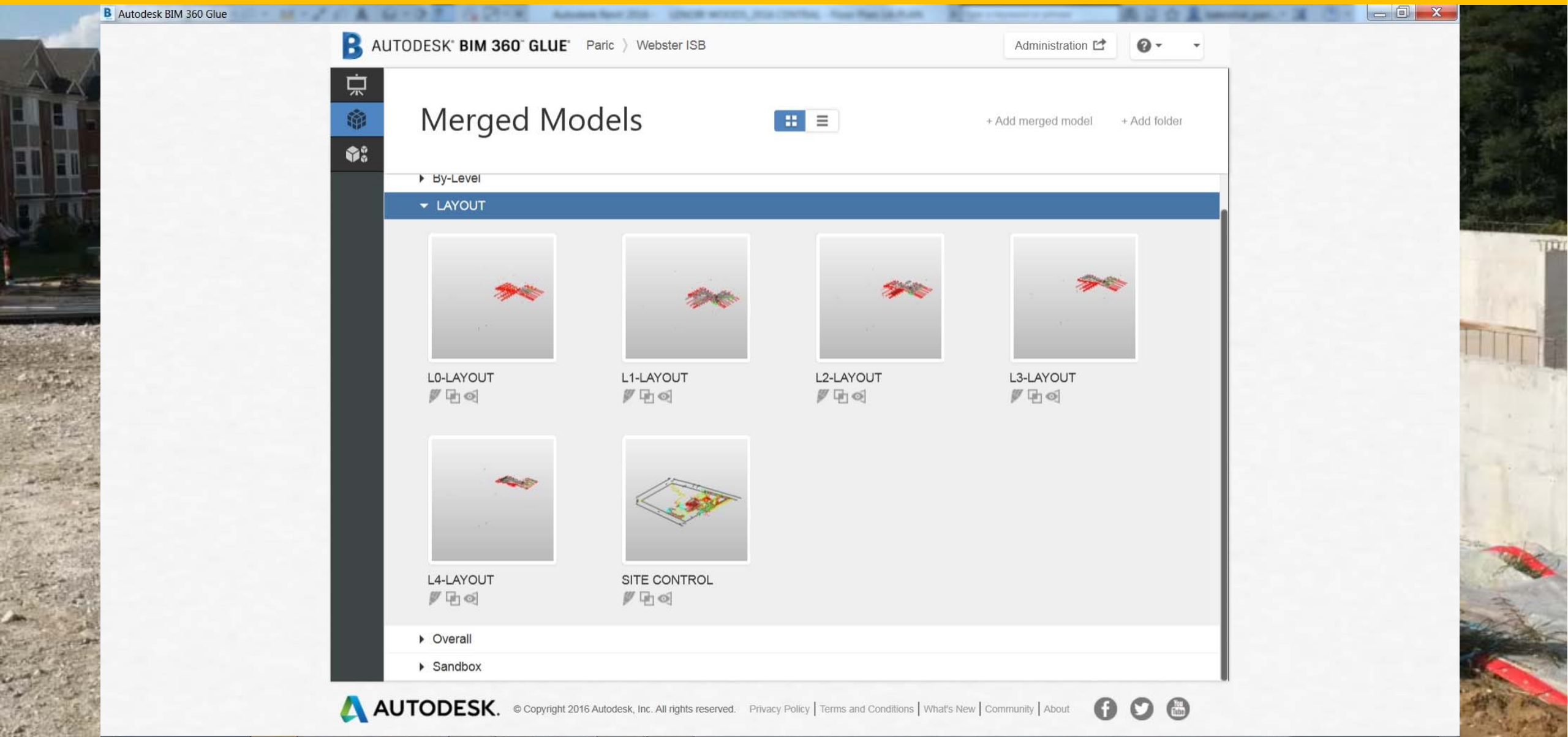


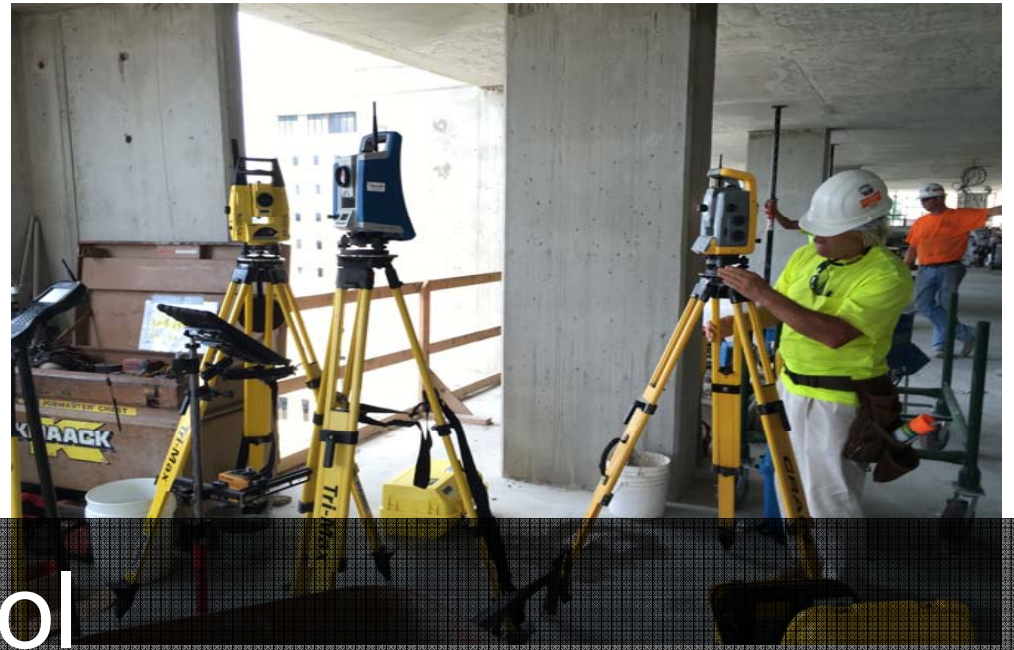
Coordination – Clash Avoidance

Construction – Management

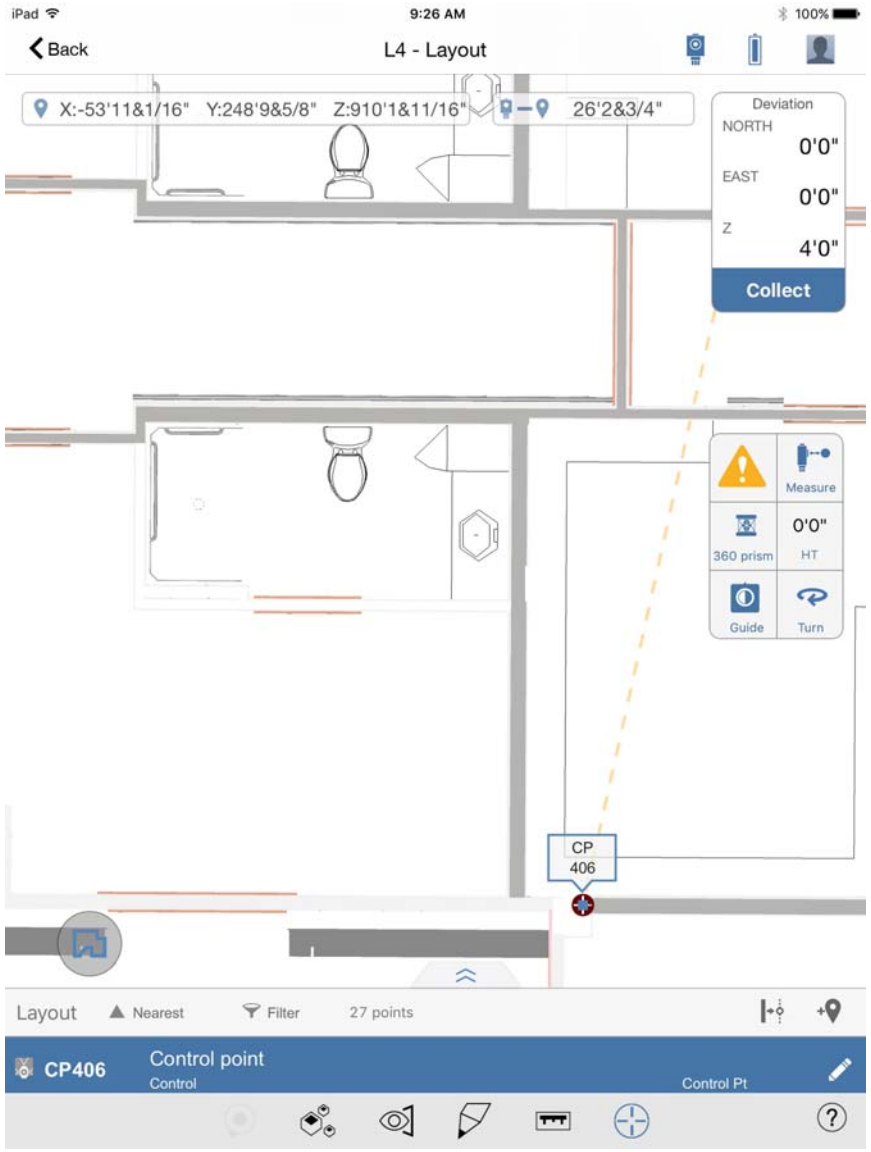
GLUE 360 LAYOUT FIELD 360 DOCS

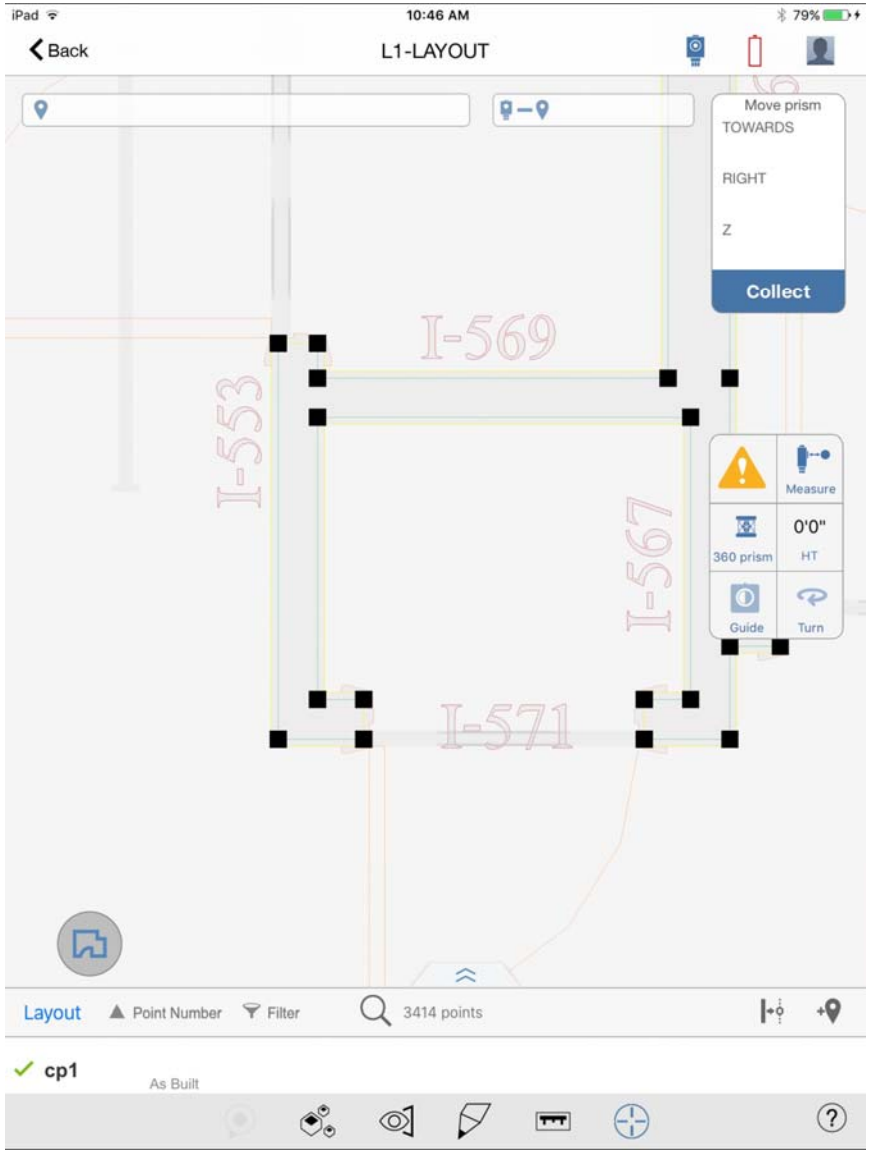
Construction - Layout





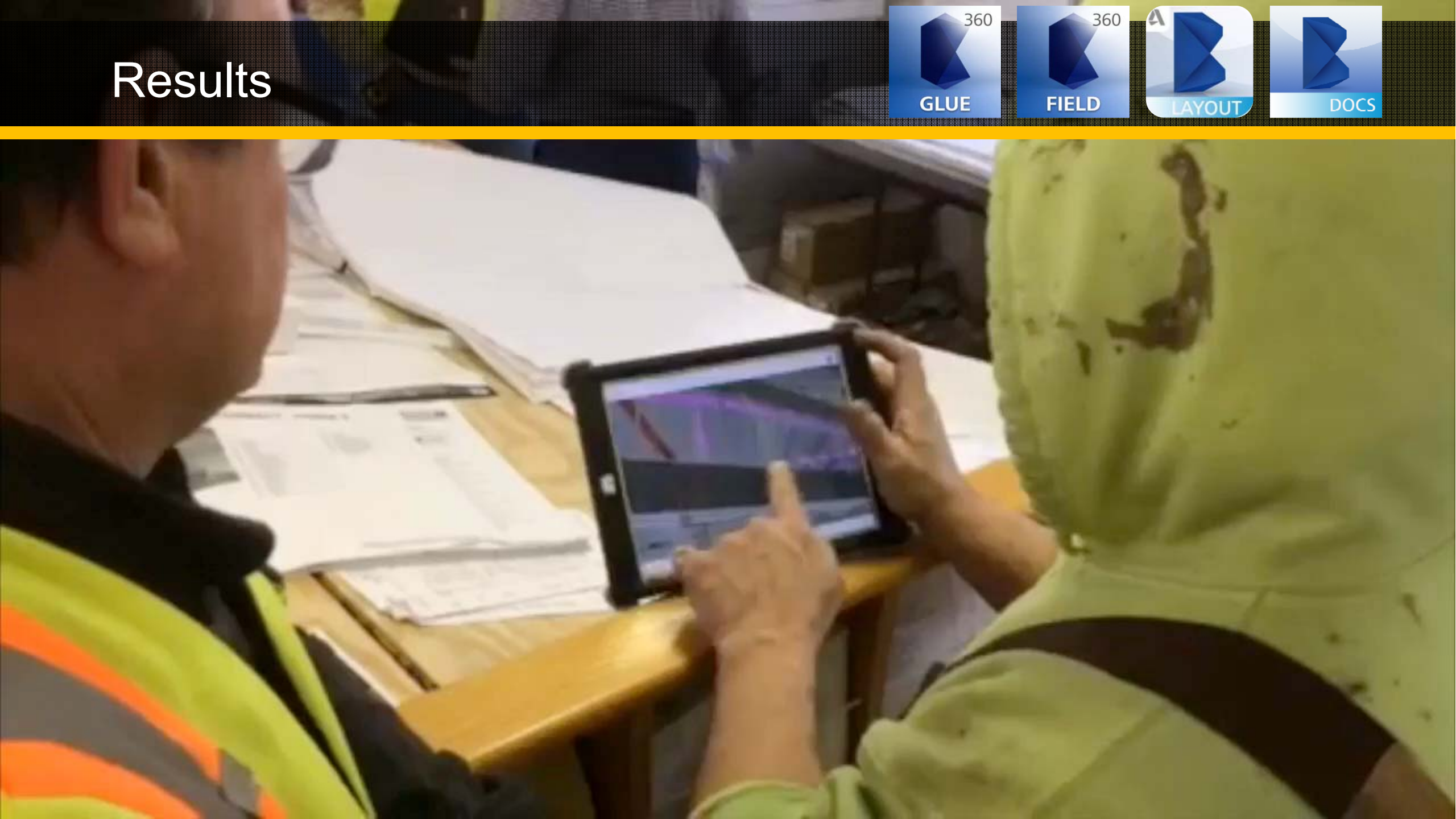
Challenges – Layout & Control





Ongoing Development

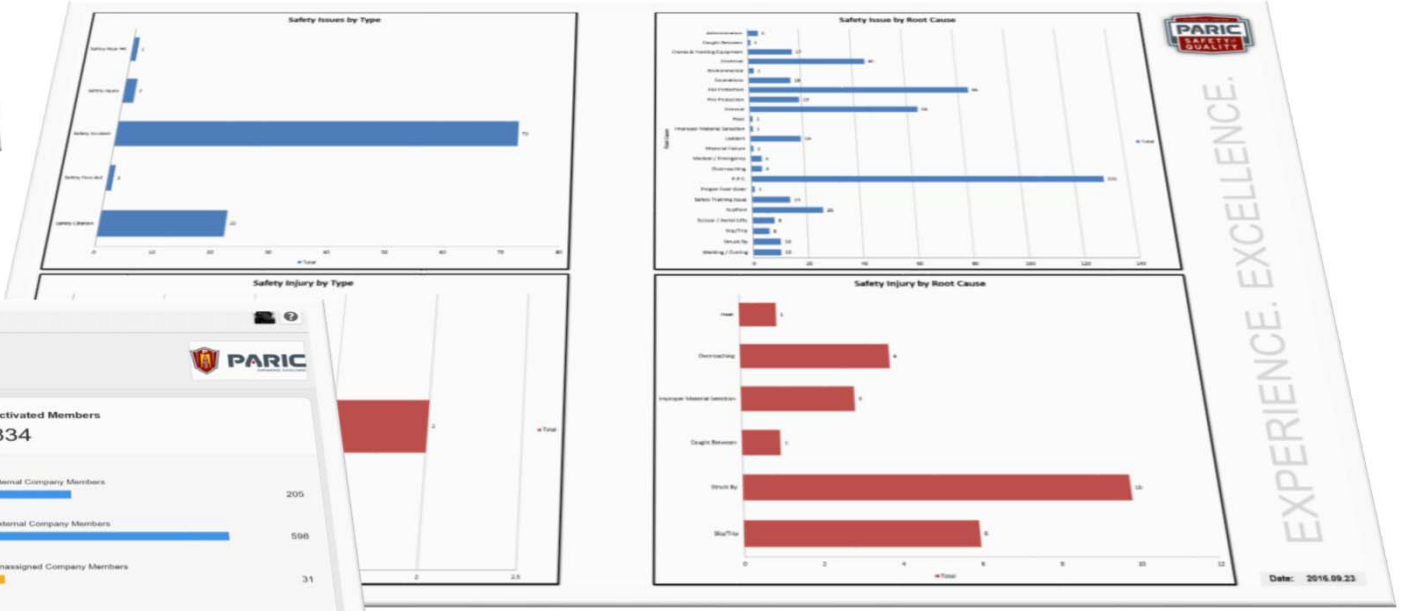
Results

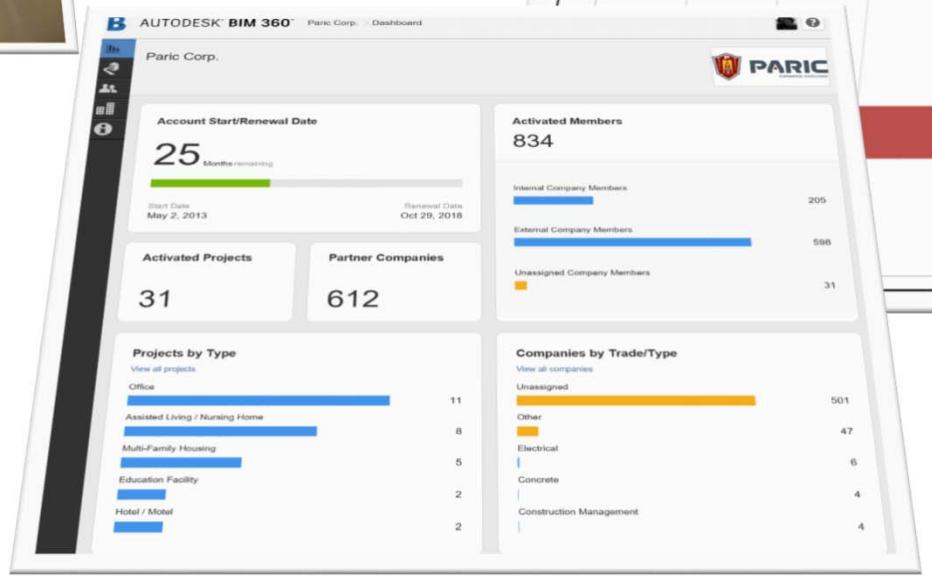


Benefits

QA/QC - Issue Tracker (Total vs Closed)
750
500
250
0
Issues
44 weeks ago
36 weeks ago
28 weeks ago
20 weeks ago
12 weeks ago
4 weeks ago
Total
Closed
Completed

Safety - Root Cause
Safety Training Issue 11 %
Ladders 11 %
Fall Protection 39 %
General 13 %
P.P.E. 26 %


Safety Issues by Type
Safety Issue by Root Cause
Safety Injury by Type
Safety Injury by Root Cause
PARIC
SAFETY QUALITY
EXPERIENCE. EXCELLENCE.
Date: 2016.09.23


AUTODESK BIM 360
Paric Corp. › Dashboard
Paric Corp.
PARIC
Account Start/Renewal Date
25 Months remaining
Start Date May 2, 2013
Renewal Date Oct 29, 2018
Activated Members
834
Internal Company Members 205
External Company Members 598
Unassigned Company Members 31
Activated Projects
31
Partner Companies
612
Projects by Type
View all projects
Office 11
Assisted Living / Nursing Home 8
Multi-Family Housing 5
Education Facility 2
Hotel / Motel 2
Companies by Trade/Type
View all companies
Unassigned 501
Other 47
Electrical 6
Concrete 4
Construction Management 4

Questions?

Andy Leek
agleek@paric.com
636-561-9548

Brett Kostial
bakostial@paric.com
636-561-9523

Thank You

www.bimlearningcenter.com

How did we do?

Session CS20921

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