



Saving the World one Building at a time: BIM for O&M and LEED EBOM Certification

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Class summary

- We tend to focus on designing and constructing new buildings, yet they represent only 2 percent of United States commercial buildings. Greening operations and maintenance (O&M) of existing facilities is critical, and more AEC professionals should be involved in the entire building lifecycle. The Building Information Modeling (BIM) processes and tools that we use for design and construction are essential to an O&M assessment and ongoing facility management. Autodesk® Revit®, Autodesk® Vasari, and Autodesk® Green Building Studio® all help with planning facility changes, in identifying heat islands, and for designing solutions. Whether a building model exists for a facility or not, point cloud data can be brought into Autodesk® Navisworks® to verify existing conditions. Cloud solutions from Autodesk, such as Autodesk® BIM 360™ Field help tremendously for verification, BIM viewing, and retro-commissioning. Come and learn how DPR Construction has approached BIM for the lifecycle.

Key learning objectives

At the end of this class, you will be able to:

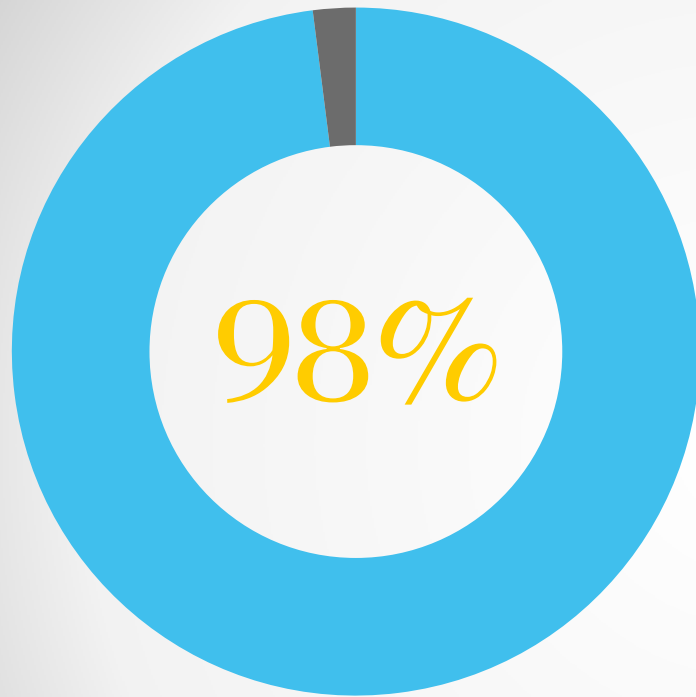
- Describe why sustainability for Existing Buildings is important
- Develop templates for using Autodesk BIM tools for O&M assessment
- Define where Autodesk BIM tools can help with preparing for LEED EBOM
- Explain where verification tools and Autodesk BIM software can work together for the benefit of all

Sustainability for Existing Buildings

Sustainability is

“....meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

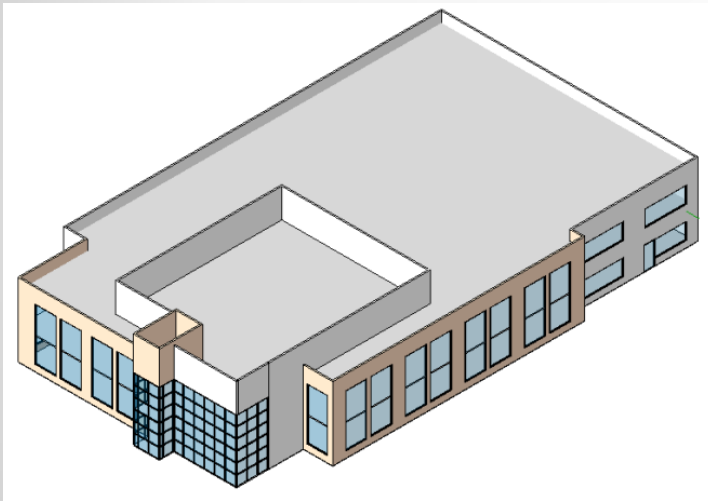
– Architect’s Handbook of Professional Practice (p 603)



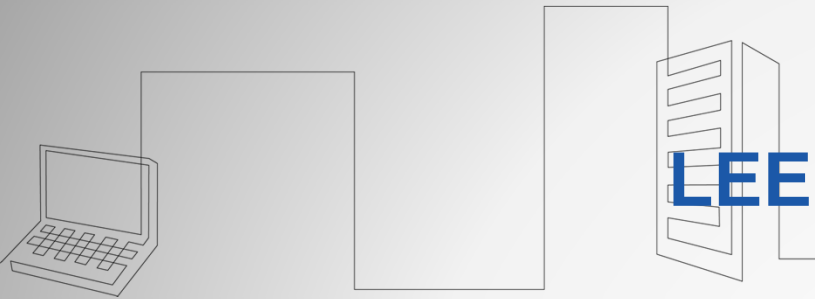
**EXISTING
BUILDINGS**



Corporate Office LEED EBOM Silver



Sustainability for Existing Buildings



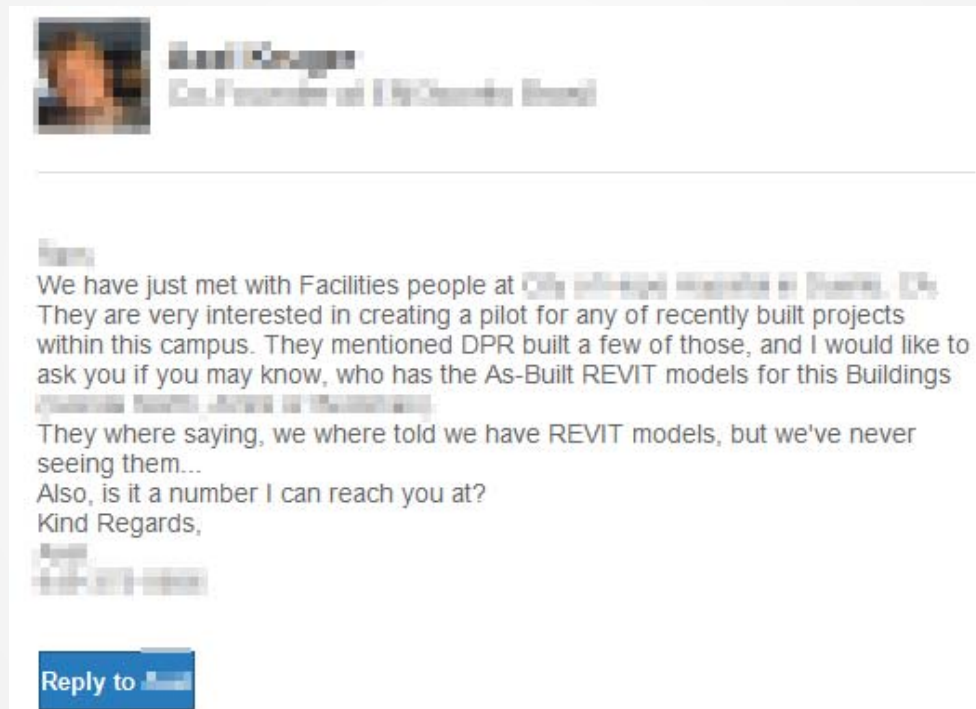
Data Center LEED EBOM Platinum

- Confidential Client
- Established Relationship
- Concurrent Build out of 3rd Building
- LEED Certification pursued simultaneously on all project buildings



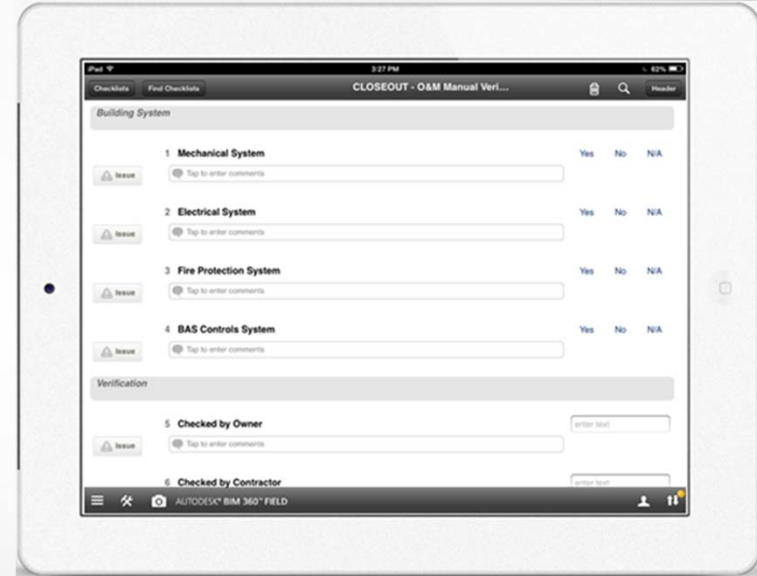
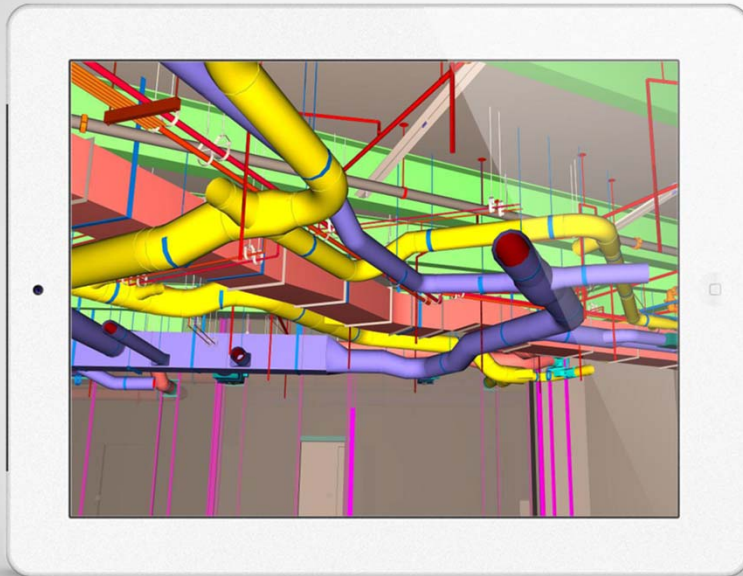
Sustainability for Existing Buildings

Whose Opportunity for Improvement (OFI) is this?



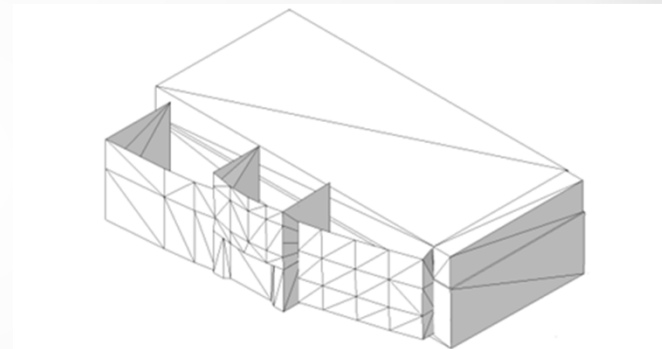
Autodesk BIM tools for O&M

Mobile Solutions



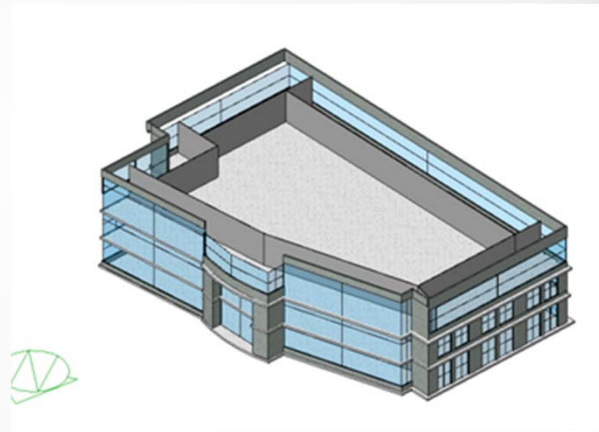
Autodesk BIM Tools for O&M

From images to BIM

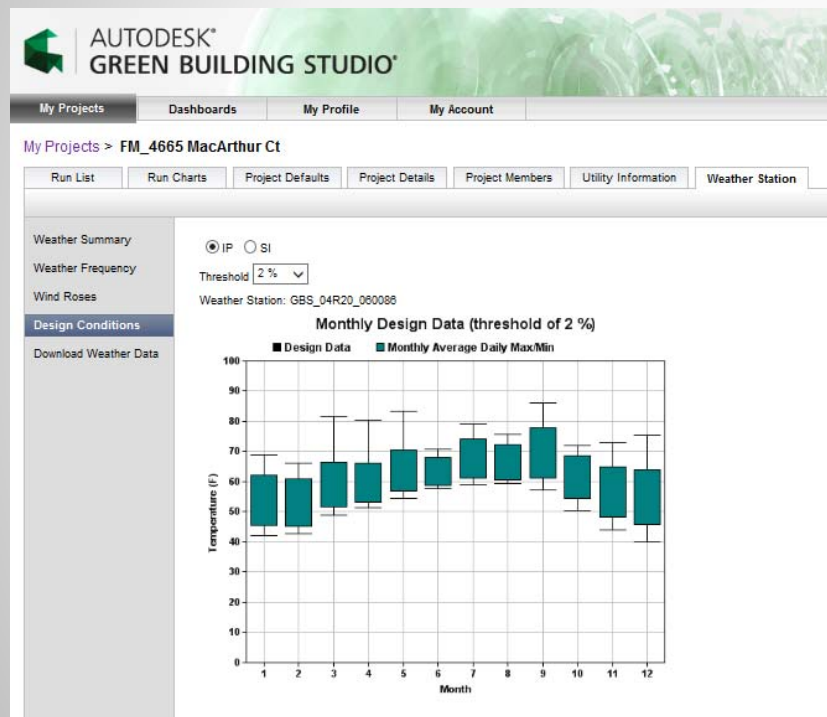


Autodesk Revit

- Space Plan/ Floor Plan
- Energy Model Zones



Green Building Studio



Autodesk BIM Tools for O&M

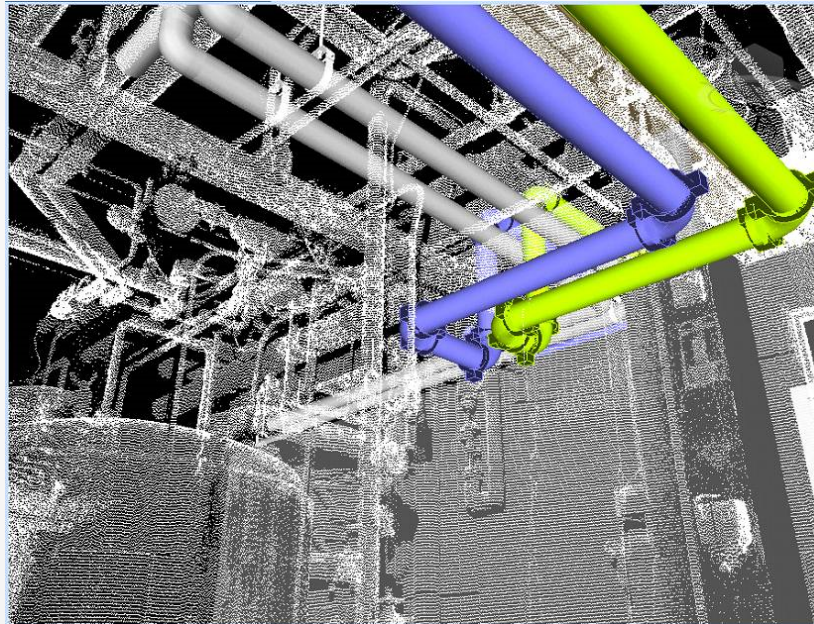
Verification tools, BIM software, and Certifications

AB 1103 - California

	AB 1103 – Mandatory Energy Report	LEED EBOM	Green Globes CIEB
Size of Project	Greater than 5,000 GSF	Greater than 1,000 GSF	Greater than 400 GSF
Boundary Definition	Commercial Building / Parking Struct.	Whole Building, No Parking	Not specified



Verification with Point Clouds



Verification Tools, BIM Software and Certifications

IR Thermography



Applied Strategies

Kill Switch

