Partnering for BIM Lifecycle Success

Bill Meyer
Senior Application Engineer – FM:Systems
Jerry Motto
Technical Specialist – Architecture - USCAD

Class summary

FM2275 - FM:Systems® Building Information Modeling (BIM) integration software enables architecture, engineering, construction (AEC), and facilities professionals to connect Autodesk® Revit®-based software models to a cloud-based system to help them manage space, plan maintenance, and more. This class explores the opportunity for AEC professionals and building owners and operators to partner on a BIM lifecycle approach to managing facilities. We demonstrate how to create and maintain a live bidirectional integration between Revit software and the FM:BIM cloud-based system. We explore how AEC professionals can work more closely with building owners to develop BIM guidelines, workflows, and methods of integrating Revit models into a full BIM lifecycle. Finally, we discuss setting up a model in Revit, including defining rooms, spaces, and assets and publishing facility plans from Revit into FM:BIM.

Key learning objectives

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

- Describe how the design team fits into the BIM lifecycle of a building
- Explain how a Revit model can be used to expand the services that design and construction teams provide to building owners
- Set up BIM lifecycle workflows, including round-tripping model information between Revit and an integrated workplace management system
- Connect a Revit model to FM:Systems BIM lifecycle solutions

Lifecycle BIM for AEC and Facilities Teams

Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

Ziggurat of Mesopotamia

Pyramids of Egypt

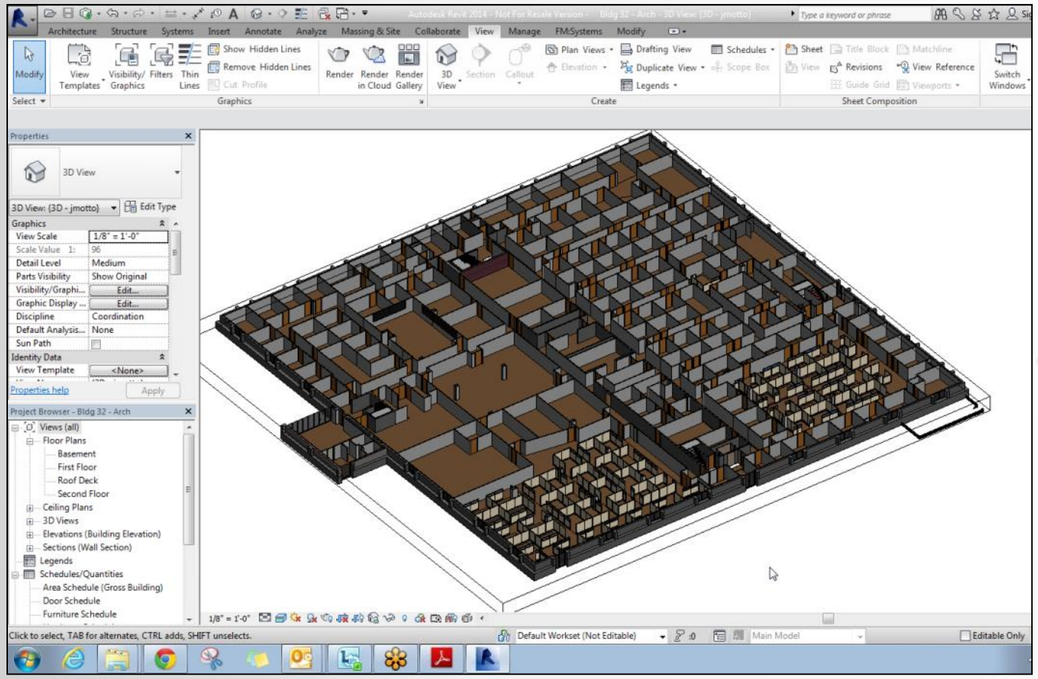
FM:Systems

U.S. CAD ACHIEVE MORE.

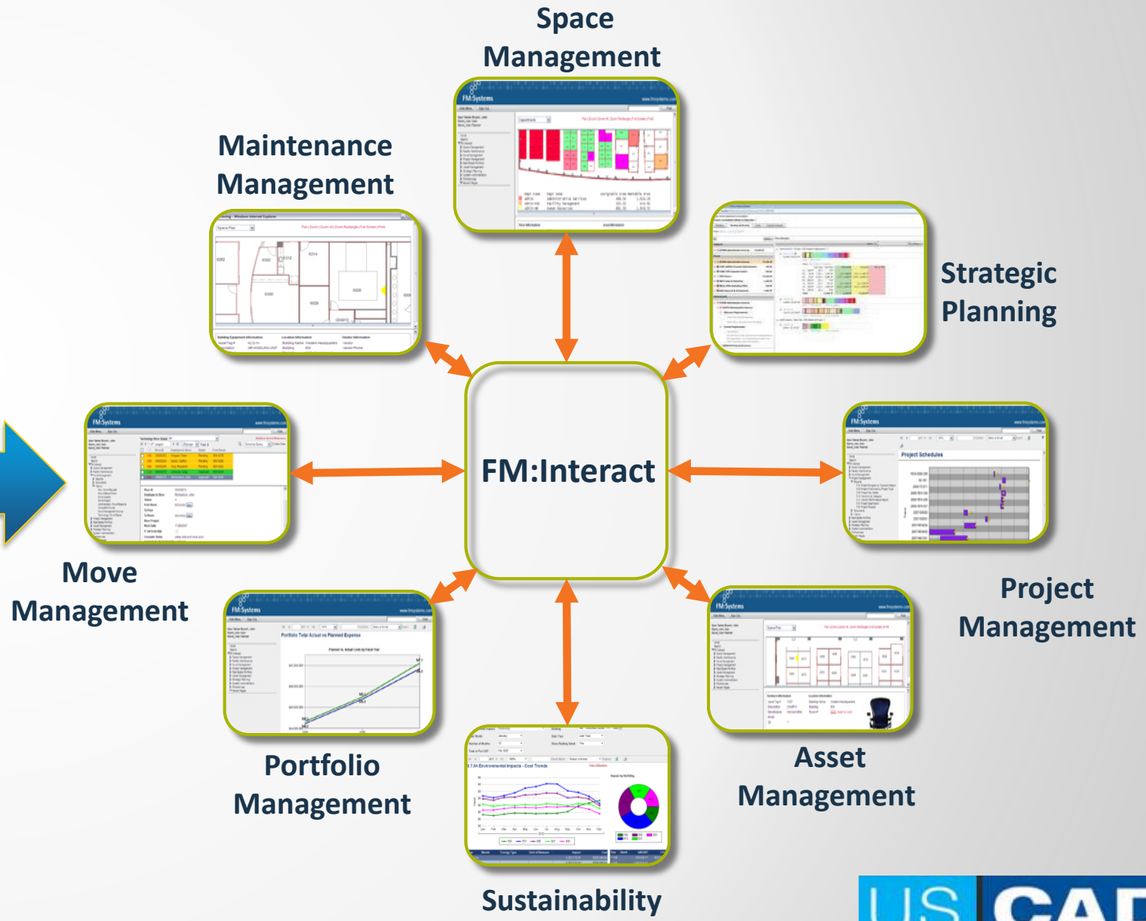
Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

Revit – A daily tool for AEC professionals



FM:Interact – A daily tool for facilities professionals



FM:Systems

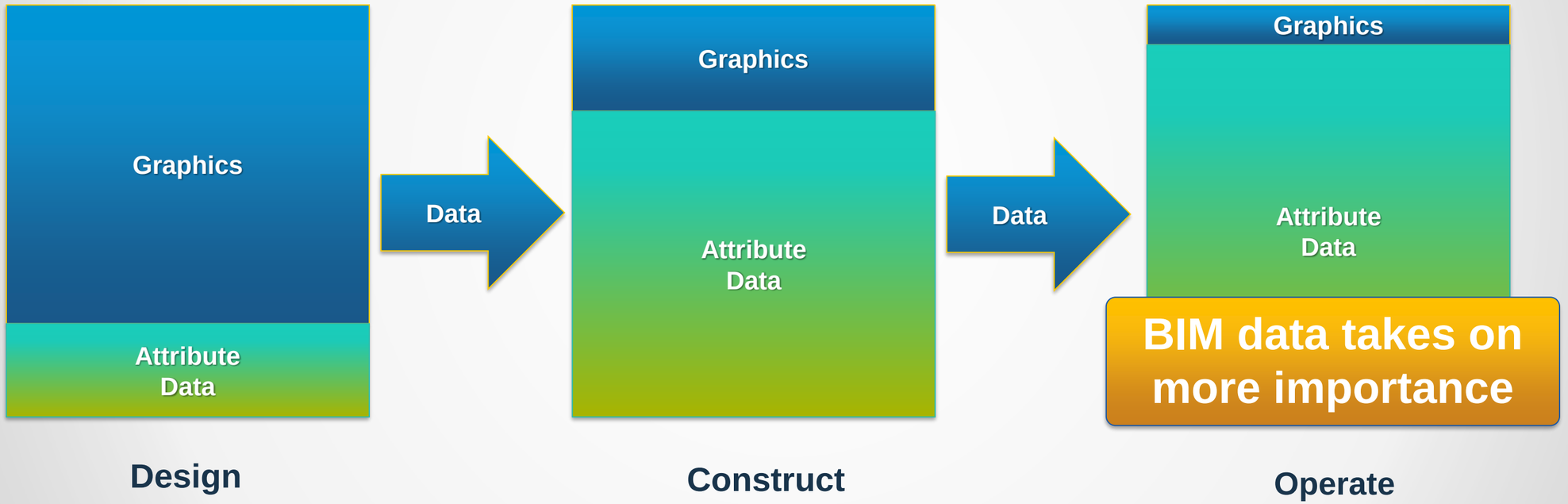
U.S. CAD ACHIEVE MORE.

Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

BUILDING INFORMATION MODELING

THE IMPORTANCE OF THE "I" (INFORMATION) IN BIM increases once a building becomes operational



FM:Systems

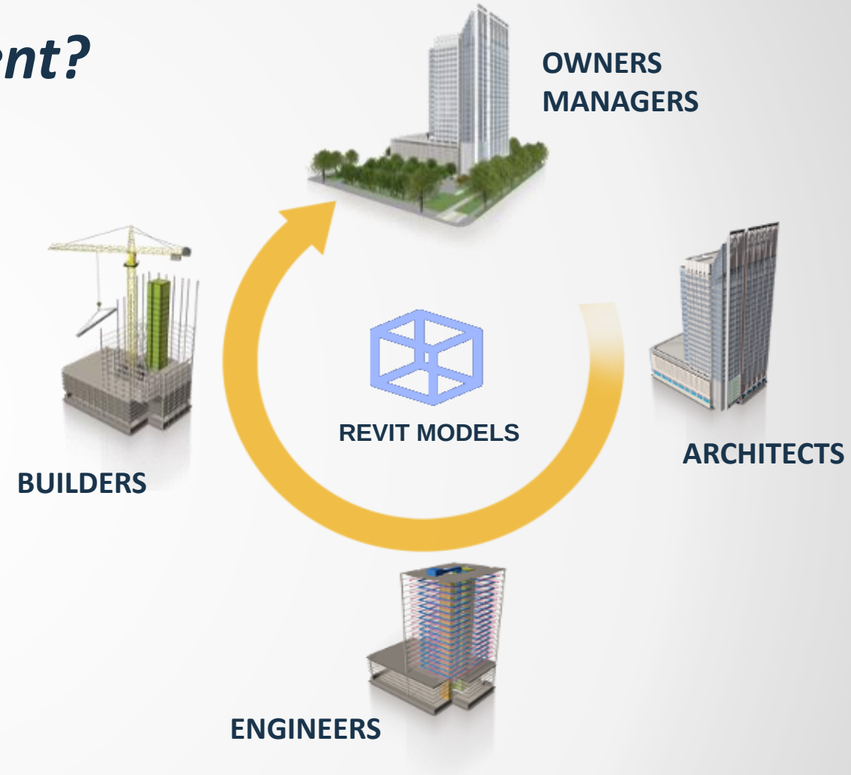
U.S. CAD ACHIEVE MORE.

Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

What is FM:Interact's BIM Integration Component?

- Cloud-based system for facilities with an Autodesk® Revit® add-in
- Maintains a live integration between the Revit model and the Cloud
- Allows for the population and maintenance of building data at any point in a buildings lifecycle



FM:Systems

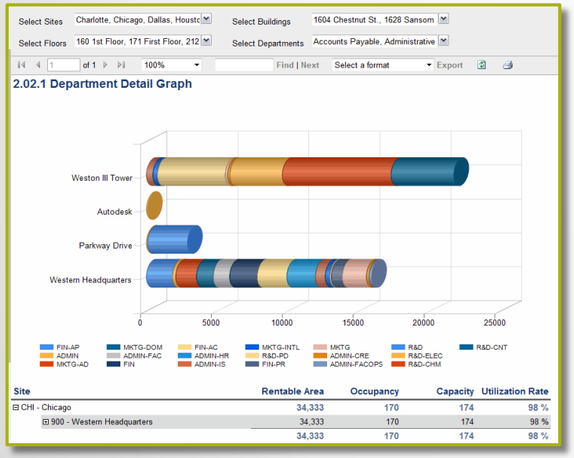
U.S. CAD ACHIEVE MORE.

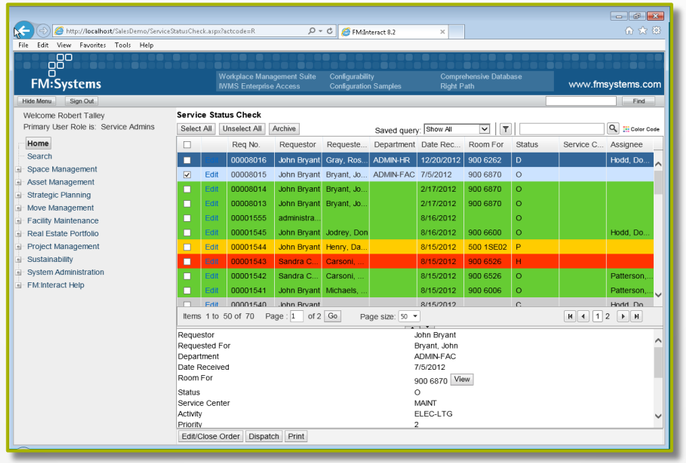
Partnering for BIM Lifecycle Success

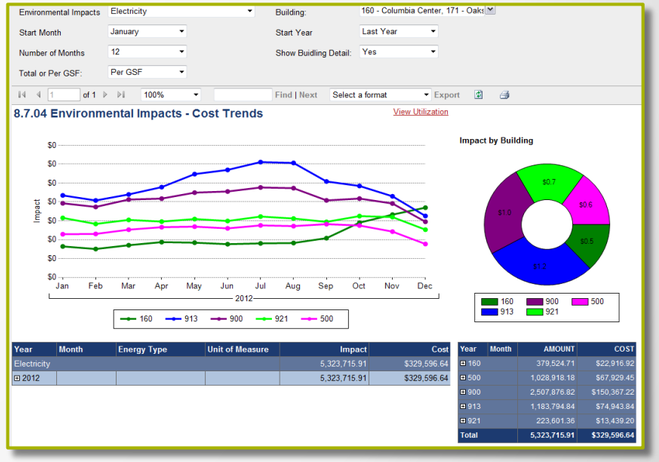
Lifecycle BIM for AEC and Facilities Teams

What does this supplement Revit?

- Infinite Attribution
- Big Data Reporting
  - Space + HR + CMMS + IT + etc.
- Role and User based security
- Integrates BIM Lifecycle process into daily facilities workflows







FM:Systems

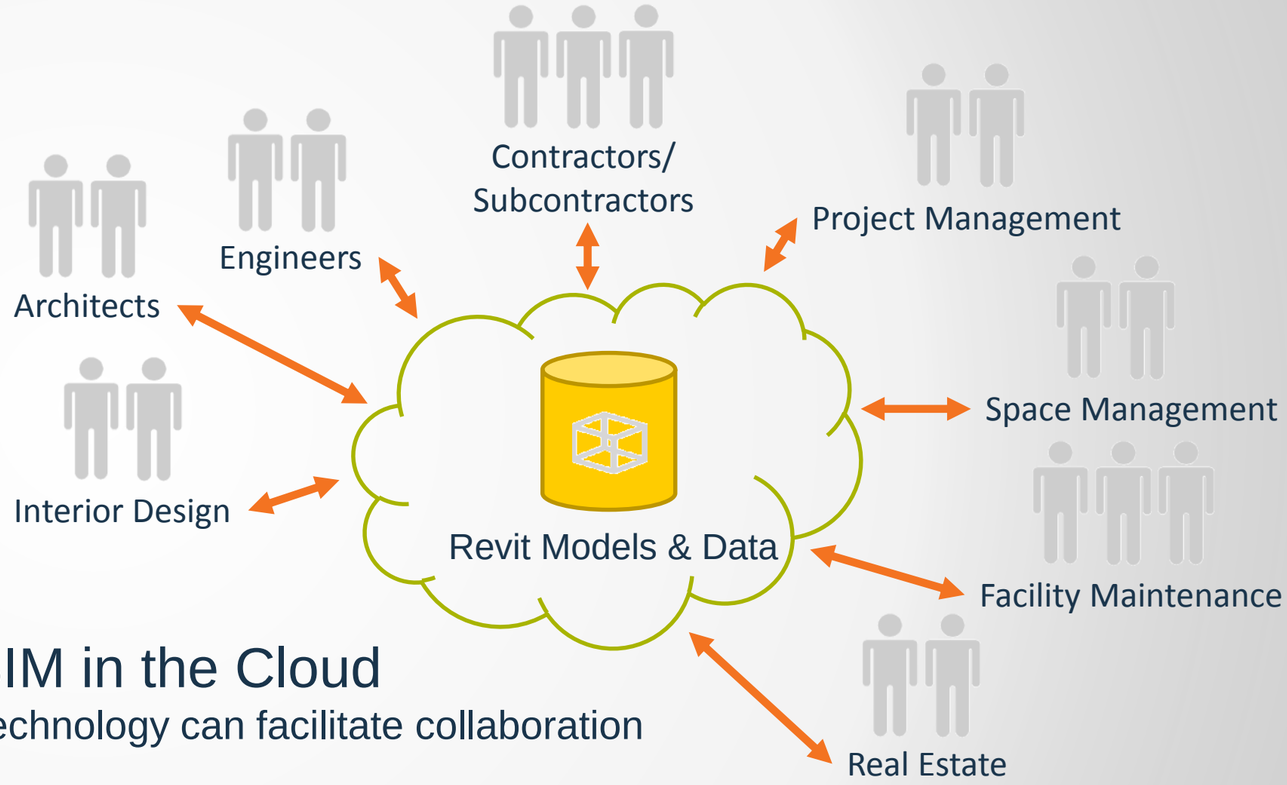
U.S. CAD ACHIEVE MORE.

Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

Summary of capabilities and benefits

- Distributed secure Cloud based access
- Model maintenance and health
- Model(s) are part of the continual facilities planning and upkeep process
- Helps to realized the promise of the “I” in BIM for facilities teams
- Enhancing without disrupting your current facilities process



BIM in the Cloud

Technology can facilitate collaboration

FM:Systems

U.S. CAD ACHIEVE MORE.

Benefits for AEC professionals

Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

Benefits for AEC for helping owners adopt a BIM based building lifecycle

- Develop new revenue streams
- Differentiate your services
- Maintain ongoing relationships with key clients

Images Courtesy of Autodesk

FM:Systems

U.S. CAD ACHIEVE MORE.

Building Owner Benefits of Lifecycle BIM Pre and Post Occupancy

Partnering for BIM Lifecycle Success

Lifecycle BIM for AEC and Facilities Teams

Pre-Occupancy Benefits

- Begin space and maintenance planning
- Entering building product data and documents
- Creating inventory of building equipment
- Streamlines the AEC handover process

Images Courtesy of Autodesk

FM:Systems

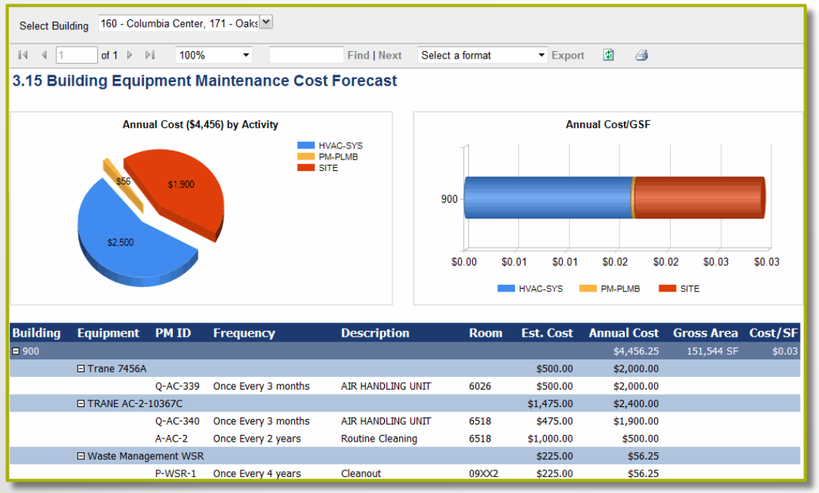
U.S. CAD ACHIEVE MORE.

Partnering for BIM Lifecycle Success

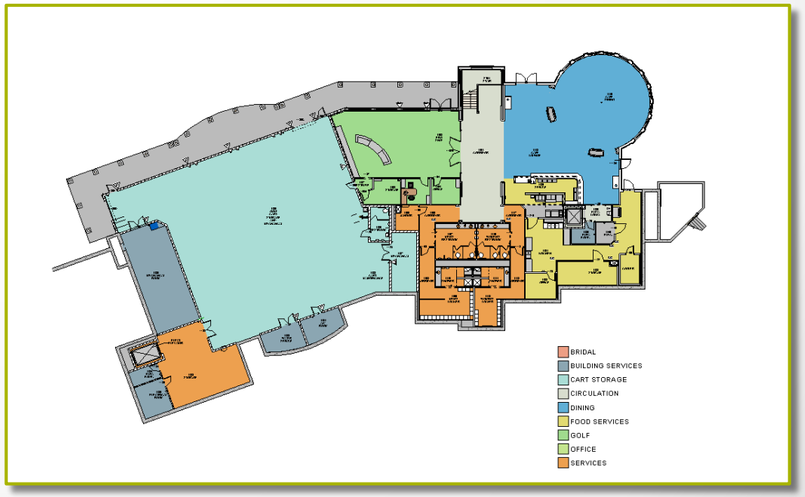
Lifecycle BIM for AEC and Facilities Teams

Post-Occupancy Benefits

- Smoother transition to facilities operations
- Leverages BIM investment for the building lifecycle
- Greater efficiency and Accuracy (No polylining!)
- Models are ready for future projects



Building	Equipment	PM ID	Frequency	Description	Room	Est. Cost	Annual Cost	Gross Area	Cost/SF
⊟ 900							$4,456.25	151,544 SF	$0.03
	⊟ Trane 7456A					$500.00	$2,000.00		
		Q-AC-339	Once Every 3 months	AIR HANDLING UNIT	6026	$500.00	$2,000.00		
	⊟ TRANE AC-2-10367C					$1,475.00	$2,400.00		
		Q-AC-340	Once Every 3 months	AIR HANDLING UNIT	6518	$475.00	$1,900.00		
		A-AC-2	Once Every 2 years	Routine Cleaning	6518	$1,000.00	$500.00		
	⊟ Waste Management WSR					$225.00	$56.25		
		P-WSR-1	Once Every 4 years	Cleanout	09XX2	$225.00	$56.25		



FM:Systems

U.S. CAD ACHIEVE MORE.

Demonstration and discussion of the BIM lifecycle workflow

Autodesk is a registered trademark of Autodesk, Inc., and/or its subsidiaries and/or affiliates in the USA and/or other countries. All other brand names, product names, or trademarks belong to their respective holders. Autodesk reserves the right to alter product and services offerings, and specifications and pricing at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document. © 2013 Autodesk, Inc. All rights reserved.