

# Technology Solutions for Educational Facilities

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# Cool Technology Alone Isn't Enough

Technology needs to accomplish the following:

- Solve an underlying business problem or need
- Support the organization's mission and long term strategic goals
- Provide a measurable return on investment
- Have implementation costs commensurate with expected outcome

# What is an Integrated Workplace Management System (IWMS)?

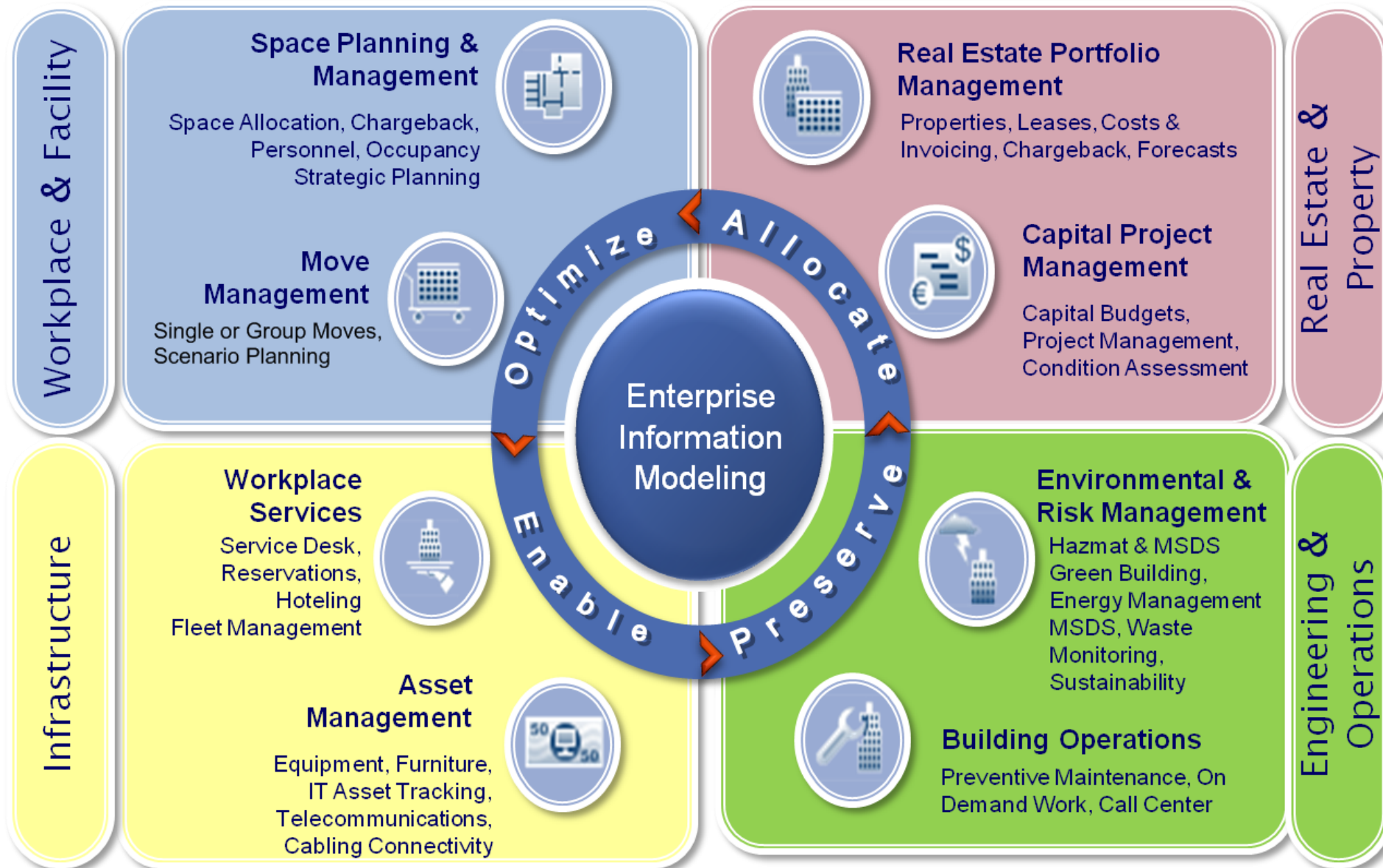
- IWMS technology is an advanced technology platform designed to help organizations manage their facility and asset portfolios more effectively by integrating key processes in a single software solution.
- IWMS solutions simplify and connect processes with automated workflows, analytics to support decision making and powerful reporting tools.

# IWMS Functions

IWMS solutions are commonly bundled as fully integrated suites or as individual modules that can be scaled over time. They are typically organized into the following functional domains:

- Space Management
- Real Estate and Property Management
- Capital Planning and Project Management
- Operations and Maintenance Management
- Energy and Sustainability Management

# A Holistic View of Facilities



# Benefits of an IWMS Solution

- Improves existing processes and workflows
- Cost containment/cost avoidance
- Improves productivity – able to do more with less
- A single underlying database and point of entry reduces silos of information
- Collaborative and transparent
- Integrates with ERP and other systems
- Enforces normalization of data and data standards
- Provides powerful reporting and analytic tools

# What We Want to Avoid

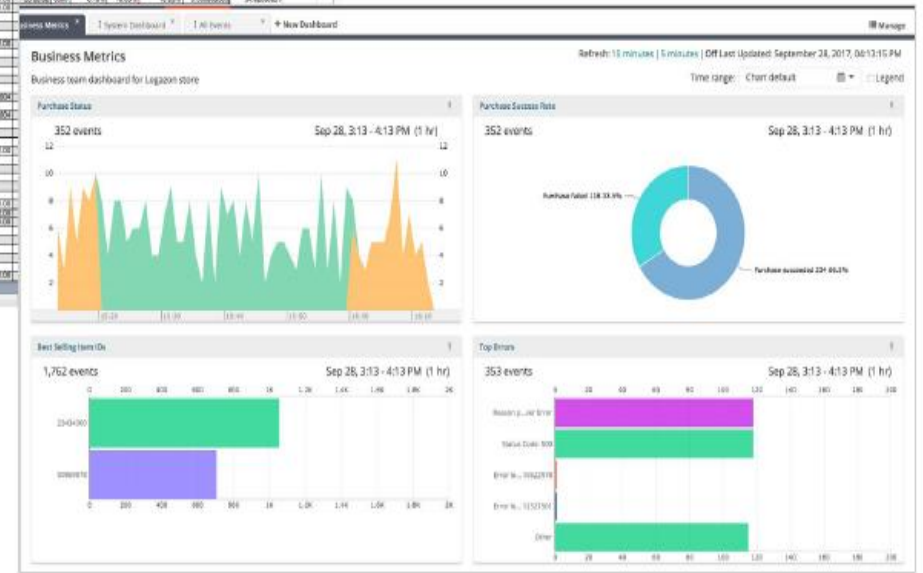


# The Ultimate Goal

To gain timely access to current information when and how it is needed



Company	Price	Volume	Market Cap	Current Price	Div. Yield	52-Week High	52-Week Low	PE Ratio	EPS	Dividend	Yield %	Market Value
VeriGen S	11.50	100	1.15B	11.50	2.5%	12.50	10.00	10.00	1.15	0.2875	2.5%	1.15B
VeriGen S	11.50	100	1.15B	11.50	2.5%	12.50	10.00	10.00	1.15	0.2875	2.5%	1.15B
VeriGen S	11.50	100	1.15B	11.50	2.5%	12.50	10.00	10.00	1.15	0.2875	2.5%	1.15B
VeriGen S	11.50	100	1.15B	11.50	2.5%	12.50	10.00	10.00	1.15	0.2875	2.5%	1.15B





# Key Performance Indicators, Metrics and Alerts

## Integrated Facility-Management Metrics

Metric	Current	Change	Change Per Year	% of Target	Trend
TCO (per Occupant)	\$2,823	-\$85	-\$565	105%	
Area Per Occupant	164 ft²	-8 ft²	-31 ft²	99%	
Area (per Seat)	250 ft²	-5 ft²	-40 ft²	96%	
Move Churn (%)	18%	1%	4%	138%	
Occupancy (%)	96%	3%	16%	113%	
Facility-Condition Index (FCI) (%)	6%	0%	1%	60%	

## Alerts

- [23] Work Teams: With less than 85% Service-Level Compliance
- [2] Regulatory Actions: Due This Week
- [10] Requests: Escalated
- [10] Work Teams: With less than 85% Customer Satisfaction
- [34] Space Requests: Requiring Approval
- [1] Move Requests: Needing Approval

## Favorites

- Review key metrics
- Be alerted at critical control points
- Review top and/or bottom performers

## Area Per Occupant

EXECUTIVE-MANAGEMENT	206 ft²
MANAGEMENT CONS.-ACCOUNTING	171 ft²
ELECTRONIC SYS.-ADMINISTRATION	168 ft²
HUMAN RESOURCES-NEW ENGLAND	158 ft²
SOFTWARE SOLN.-ACCOUNTING	147 ft²
FACILITIES-DESIGN	142 ft²
ELECTRONIC SYS.-ENGINEERING	137 ft²
FACILITIES-CONSTRUCTION	136 ft²

## Recovery

	\$95M
	\$93M
	\$91M
	\$91M
	\$90M

## SLA Compliance

USS	125%
ACU	125%
CCT	124%
CBD	124%
BIOHAZARD	123%

## Vacancy

Top 5 by Building	
ZURDC	13%
LX	13%
ZUROFF	12%
BRUSSOFF	12%
XC	12%

## Facility Condition Index

Bottom 5 by Building	
PARIOFF	9%
JEDDOFF	9%
NTOWER	9%
TAIOLD	9%
MEXWARE	9%

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# IWMS Vendors

## Smartphone



## BIM



## GIS



## ERP



## Database



## BMS, CAFM, CMMS, IWMS...



## Base Your Decision On:

- What information is most important to my institution?
- What enterprise systems does my institution currently use?
- How much can I afford?
- Will the system I want integrate with our existing critical systems?
- What is required to maintain the system information and infrastructure?
- Do I have the right people to manage the system?
- What is our long term plan and will this technology enable our success?

# Provides a Common Operating Picture for Stakeholders

BIM + CAD + GIS + Data

The image displays a comprehensive software interface for facility management, integrating BIM, CAD, GIS, and data analytics. The interface is divided into several key sections:

- Top Left: Space Console**
  - Locations:** Search and filter options for buildings and rooms.
  - Table:**

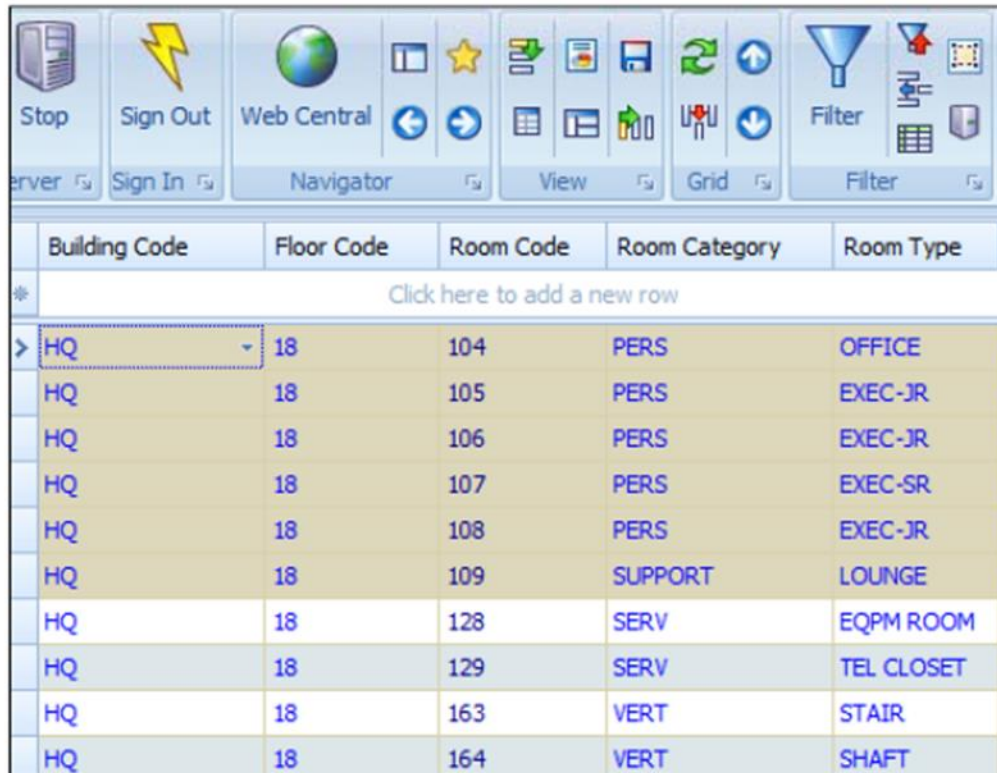
Building	Floor	Room Area (sq ft)	Capacity	Occupancy	Room Count
W0000	01	49,574.45	111	100	205
W0000	02	49,574.45	111	100	205
W0000	03	42,214.19	0	0	176
  - Organizations:** List of departments and their associated room categories.
- Top Center: 2D Floor Plan**
  - Color-coded 2D floor plan showing room layouts and organizational assignments.
- Top Right: GIS Map**
  - Geographic Information System (GIS) map showing the campus or site layout with red building footprints.
  - Filters for Fiscal Year (FY: 2016) and Campus or Site (BEDFORD).
- Bottom Left: Financial Dashboards**
  - Project/Fisca:** 3% (\$ 71 M) Appreciation, 2% (\$ 41 M) Depreciation.
  - Balance Sheet Liability:** 30% (\$ 663 M) Outstanding Debt on Assets.
  - Off-Balance Sheet Liability:** - (\$ 2,056 M) Outstanding Lease Commitments.
- Bottom Center: Analysis Scorecard**
  - Table of Capital Projects with columns for Building, Use, and Capital Projects (fy).

Building	Use	Capital Projects (fy)
SRL	OFFICE	\$2,626,788.89
NC01	MIXED USE	\$14,944,580.66
NC06	MFG	\$1,426,019.45
NC02	OFFICE	\$246,448.56
NC04	OFFICE	\$1,945,139.73
NB	R-D	\$746,923.95
NC07	OFFICE	\$1,177,596.53
NC05	OFFICE	\$82,852.09
AS	OFFICE	\$487,054.84
<b>Total</b>		<b>24,426,628.85</b>
- Bottom Right: 3D Model**
  - 3D perspective view of the building complex, showing architectural details and spatial relationships.

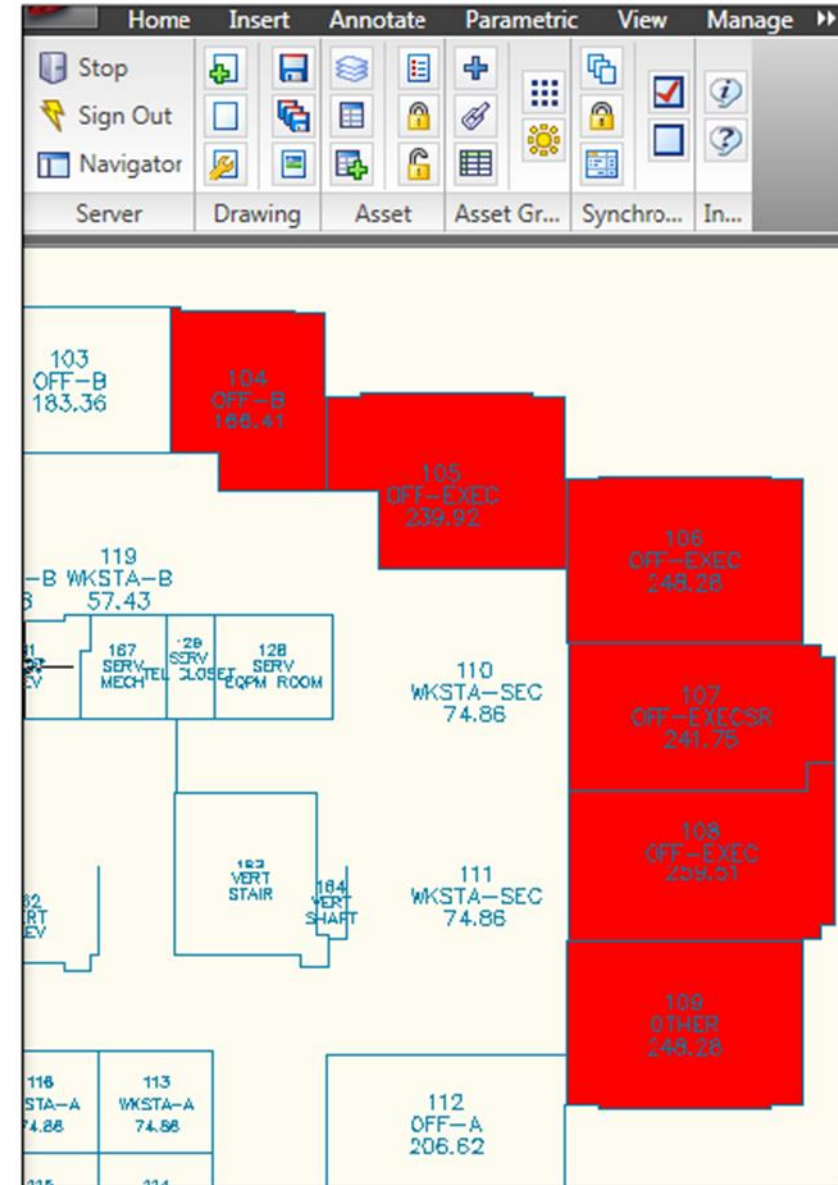
# Key Concept – Connecting CAD and Data

## RESULTS

– Bi-directional CAD link



Building Code	Floor Code	Room Code	Room Category	Room Type
* Click here to add a new row				
HQ	18	104	PERS	OFFICE
HQ	18	105	PERS	EXEC-JR
HQ	18	106	PERS	EXEC-JR
HQ	18	107	PERS	EXEC-SR
HQ	18	108	PERS	EXEC-JR
HQ	18	109	SUPPORT	LOUNGE
HQ	18	128	SERV	EQPM ROOM
HQ	18	129	SERV	TEL CLOSET
HQ	18	163	VERT	STAIR
HQ	18	164	VERT	SHAFT



# Space Management – Support Only Rooms

Space
Occupancy

**Locations** Recent Add New

SRL FLOOR ROOM

DIVISION DEPARTMENT  Unassigned

Vacant only

Site Map More Clear **Filter**

Building	Floor	Room Area ft <sup>2</sup>	Capacity	Occupancy	Room Count
<input checked="" type="checkbox"/> SRL	01	45,858.03	129	94	209
<input type="checkbox"/> SRL	02	44,391.80	128	60	208
<input type="checkbox"/> ...	...	44,112.00	115	50	207
		<b>415,239.45</b>	<b>1,582</b>	<b>1,210</b>	<b>2,158</b>

**Organizations** **Room Categories** Rooms

Restrict to SRL Add New

Category/Type	Description	Total Area ft <sup>2</sup>	Room Count	Legend
[Unassigned]		2,854.23	29	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ccc; border: 1px solid #000;"></span>
▶ LAB	Laboratory	8,383.39	22	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ffff00; border: 1px solid #000;"></span> Assign
▶ MEETING	Meeting	13,373.65	52	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ffa500; border: 1px solid #000;"></span> Assign
▶ OFFICE	Office	38,928.56	215	<span style="display: inline-block; width: 15px; height: 10px; background-color: #90ee90; border: 1px solid #000;"></span> Assign
▶ PRIMCIRC	Primary Circulation Area	77,457.92	60	<span style="display: inline-block; width: 15px; height: 10px; background-color: #d3d3d3; border: 1px solid #000;"></span> Assign
▶ SECONDCIRC	Secondary Circulation	42,984.45	27	<span style="display: inline-block; width: 15px; height: 10px; background-color: #f0f0f0; border: 1px solid #000;"></span> Assign
▶ SERV	Service Area	89,493.95	108	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ff69b4; border: 1px solid #000;"></span> Assign
▶ SUPPORT	Support Area	22,324.81	97	<span style="display: inline-block; width: 15px; height: 10px; background-color: #32cd32; border: 1px solid #000;"></span> Assign

Show 3D Highlights: Room Categories Borders: None Labels: Employees

Generate Ad Hoc PDF Report

Generate PDF of Floors in Location List

Generate DOCX of Floors in Location List

Export What You See to DOCX

**Assets & Backgrounds**

Gross Area

Labels of Gross Area

Room

Labels of Room

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A-ANNO-TEXT

A-AREA-BDRY-fills

A-DETL-GENF

A-DOOR

A-EQPM

A-FLOR-HRAL

A-FLOR-STRS

A-GLAZ

A-GLAZ-CWMG

A-WALL

I-WALL

P-SANR-FIXT

# Room Occupancy Using Revit

**Space Console**

Space Occupancy

Show 2D Isolates: Rooms Highlights: Departments Labels: Room Number Plan Types: None

Locations

Recent Add New

NB FLOOR ROOM

DIVISION DEPARTMENT Unassigned

Vacant only

Site Map More Clear Filter

Building	Floor	Room Area ft <sup>2</sup>	Capacity	Occupancy	Room Count
<input type="checkbox"/> NB	01	41,843.23	0	0	244
<input checked="" type="checkbox"/> NB	02	51,291.61	0	0	245
<input type="checkbox"/> NB	05	25,711.51	0	0	77
<input checked="" type="checkbox"/> NB	04	24,893.35	0	0	60
<input type="checkbox"/> NB	05	8,315.55	0	0	50
<input type="checkbox"/> NB	06	932.14	0	0	6
<input type="checkbox"/> NB	0A	46,271.44	0	0	235
<input type="checkbox"/> NB	0C	36,619.33	0	0	135
		<b>235,877.96</b>	<b>0</b>	<b>0</b>	<b>1,052</b>

Organizations Room Categories Rooms

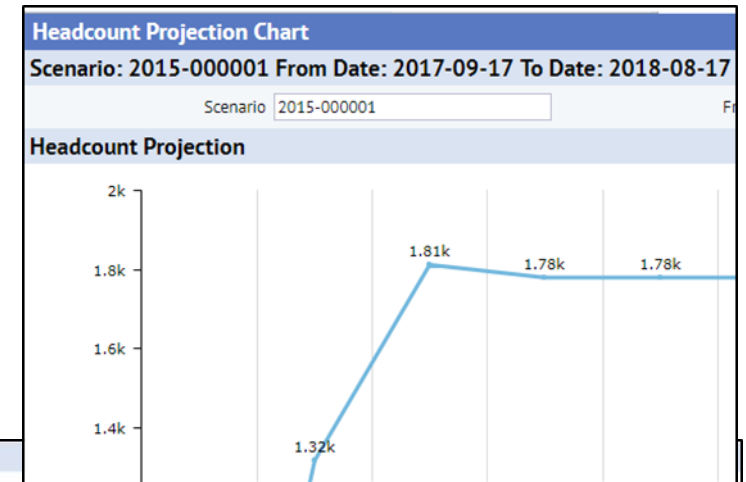
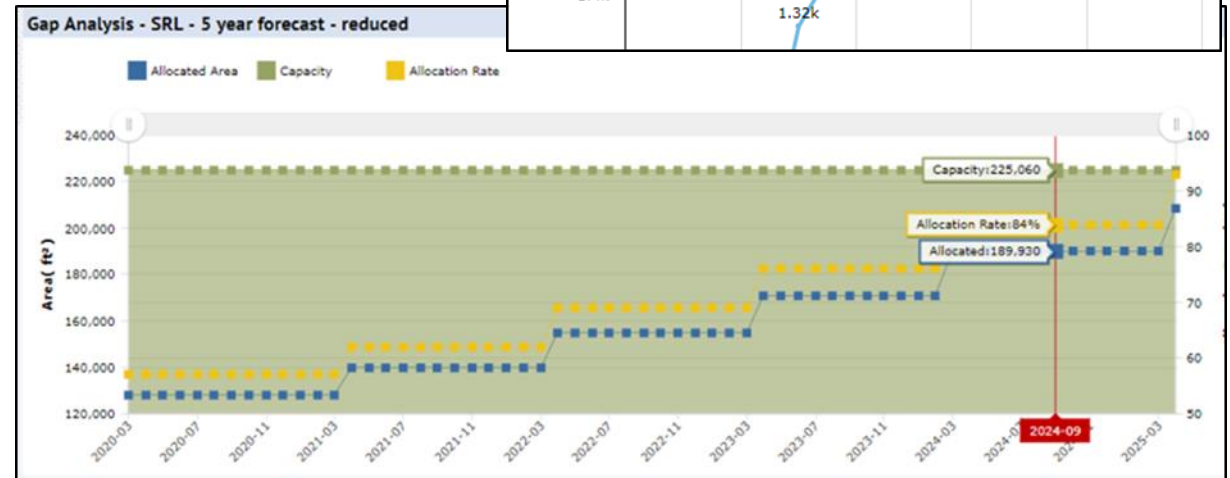
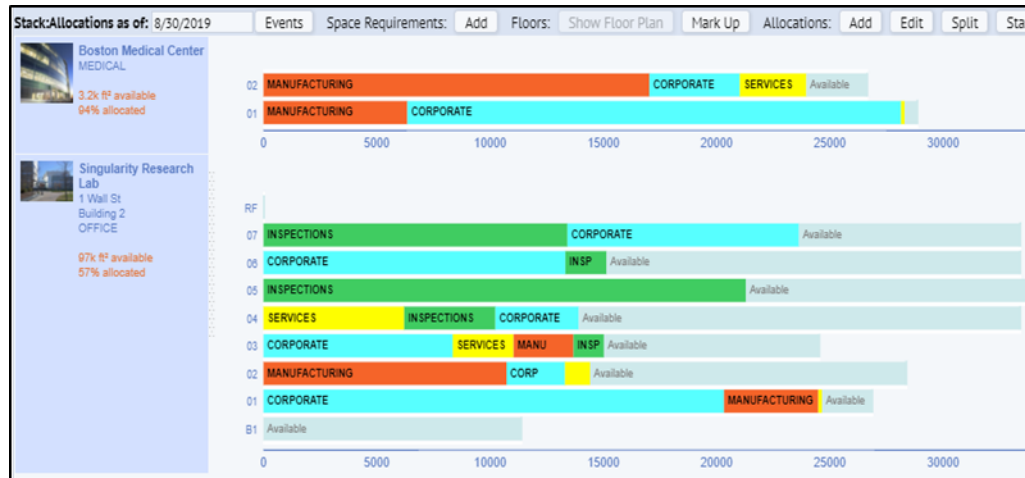
**Inherent Benefits:**

- One glance analysis of building/ floor allocations
- Interactive platform for quick action

# Strategic Space Planning

Strategic space planning functionality provides scenario-based space projections for space and project planners to understand future allocations of space and their financial impact. It typically includes:

- Space gap analysis
- Headcount projections
- Wizards for developing scenarios with stacking plans
- Links to lease, moves, and project applications



# Asset Management

Asset Registry Asset Lifecycle Management Asset Optimization Exception Reports **Asset Relationship Analysis**

Asset Selection Filter

Clear Filter Reports

GEO-REGION COUNTRY STATE CITY  
SITE BUILDING FLOOR ROOM

BUSINESS UNIT DIVISION DEPARTMENT  
PROGRAM PROJECT WORK PACKAG

Equipment CLASSIFICATIC STANDARD ASSET CODE  
ASSET STATUS CUSTODIAN SYSTEM ASSEMBLY

- Inventory Tree Assign
- ▶ Chemical Compliance Analysis (745361111164)
  - ▶ Metallurgic Compliance System (845361111500)
  - ▶ HVAC System 1 for SRL 03 (745361111224)
  - ▶ HVAC System 2 for SRL 03 (745361110425)
  - ▶ Security System (845361110800)
  - ▲ Building NB HVAC System 1 for Floors 01, 02, 03 (NB-HVAC-SYS)
    - ▲ NB - Air Handling Unit (AHU\_1)

- Filter (FILTERAHU\_1)
- Fan Module (FANMODAHU\_1)
- Coil - Refrigerant (COILREFAHU\_1)
- Coil - Hot Water (COILHOTAHU\_1)
- Mixing Box (MIXBOXAHU\_1)
- Inspection Module 1A (INSPECAHU\_1A)
- Inspection Module 1B (INSPECAHU\_1B)

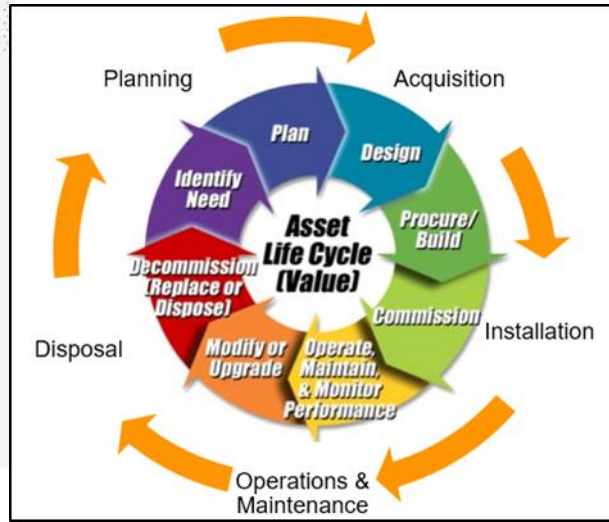
- NB - Pump (P-009)
- NB - Pump (P-010)
- NB - Cooling Tower (CNDSR-001)
- NB - Chiller (CHLR-01)

▶ Fire Prevention & Detection Sys (745361110034)

Equipment Details



Equipment Standard AHU-15000CFM  
Equipment Code AHU\_1



NB 03 340MEC Viewer: 360 Viewer Image Mechanical Room 340



Mechanical Room 340  
by



# Asset Management 3D Navigation

## \*Demo\* Equipment Systems Console



Asset Relationship Analysis Exception Reports

Asset Selection Filter

Clear Filter More Reports

GEO-REGION COUNTRY STATE CITY  
SITE BUILDING FLOOR ROOM

BUSINESS UNIT DIVISION DEPARTMENT  
PROGRAM PROJECT WORK PACKAG

Equipment CLASSIFICATIC STANDARD ASSET CODE  
ASSET STATUS CUSTODIAN SYSTEM ASSEMBLY

- Inventory Tree Assign
- ▶ Chemical Compliance Analysis (745361111164)
  - ▶ Metallurgic Compliance System (8453611111500)
  - ▲ HVAC System 1 for SRL 03 (745361111224)
    - ▶ AHU 18 (745361111234)
  - ▶ HVAC System 2 for SRL 03 (745361110425)
  - ▶ Security System (845361110800)
  - ▲ Building NB HVAC System 1 for Floors 01, 02, 03 (NB-HVAC-S)
    - ▶ NB - Air Handling Unit (AHU\_1)
      - NB - Pump (P-009)
      - NB - Pump (P-010)
      - NB - Cooling Tower (CNDSR-001)
      - NB - Chiller (CHLR-01)
  - ▲ Fire Prevention & Detection Sys (745361110034)
    - FP Flashing Lights SRL-03-370A (745361110164)
    - Emerg Power Off SRL-03-384 (745361110304)
    - Emerg Power Off SRL-03-371B (745361110294)
    - Emerg Power Off SRL-03-371A (745361110284)
    - Emerg Power Off SRL-03-370B (745361110274)
    - Emerg Power Off SRL-03-370A (745361110264)
    - Emerg Power Off SRL-03-369B (745361110254)
    - Emerg Power Off SRL-03-369A (745361110244)
    - Emerg Power Off SRL-03-368B (745361110234)

Equipment Details



Equipment Standard PMP-1000-BM-115  
Equipment Code P-009

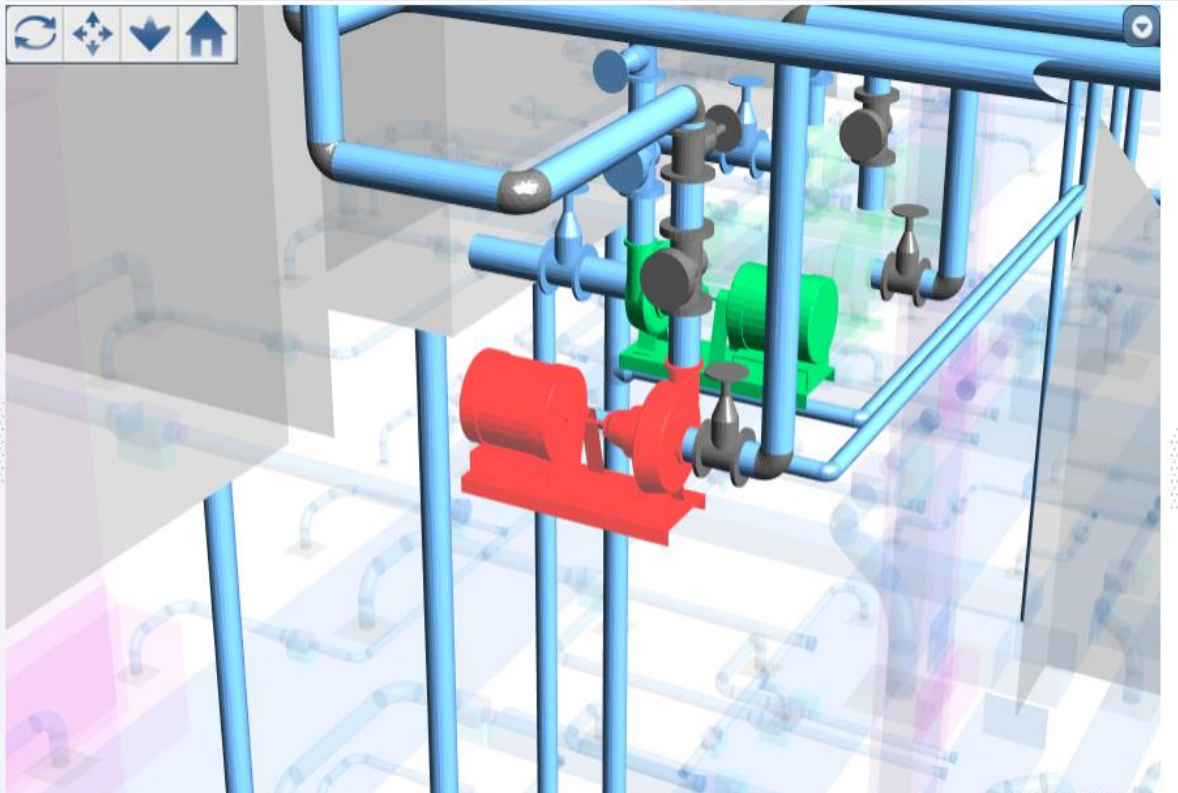
Equipment Use Mission Support  
Subcomponent of Equip.

Team Custodians Spaces

Custodians

No records to display.

NB 03 Viewer: 3D Navigator Labels: None



# Activities Occurring in a Building

**Asset Registry** | Asset Lifecycle Management | Asset Optimization | Exception Reports | Asset Relationship Analysis

Asset Registry ↶ + ↷ ↻ ↵ ⚙

Page 1 of 4 Next >>

Asset Code	Asset Type	Asset Standard	Owner Custodian	Title / Description	Asset Status	Condition	Criticality	Site Code	Building Code	Floor Code	Division Code
HQ	Building	OFFICE		Headquarters	Leased	New	0	MARKET	HQ		
1071.0	Equipment	FCU			In service	New	0		HQ	17	
1072.0	Equipment	FCU			In service	New	0		HQ	17	

Page 1 of 4 Next >>

Total records: 317

**Asset Location** ↶ ↷ ⚙

**Asset Status** ⬆ ⬇ ⬇ ⬆

- Active
- Inactive
- Disposed
- Proposed

Philadelphia, Delaware

POWERED BY **esri**

Esri, HERE, Garmin, (c) OpenStr...

**Asset Summary For Building Asset: HQ** 🖨️ ✉️

**Current Activities** | Recently Closed Activities | Historical Activities

Transaction Type	Total	Created	Requested	On Hold	Approved	Issued	Rejected
<b>Total</b>	<b>2,055</b>	<b>1,472</b>	<b>113</b>	<b>3</b>	<b>107</b>	<b>360</b>	<b>0</b>
Other	13	4	1	*	8	*	*
Assessments	325	319	1	*	*	5	*
Clean Building	1,013	1,013	*	*	*	*	*
Commissioning	127	114	8	*	3	2	*
Project Actions	72	5	13	*	*	54	*
Service Desk Group Move	10	*	1	*	9	*	*
Sustainability Assessments	17	17	*	*	*	*	*
Waste out	79	*	*	*	*	79	*
Work Request	399	*	89	3	87	220	*

Close

# Safety and Security

[CH 2] 11-27-2012 19:21:03:129

GE UTC Ployer

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16

100%

Play Stop Previous Next

# Emergency Preparedness

## \*Demo\* Highlight Zones

### Buildings

Refresh

Building Code

AB

BOSMED

DALLASOF

HQ

JFK A

JFK B

### Floors

Floor Code

18

19

B1

RF

### Information to Display

- Smoke Zones
- Alarm Zones
- Security Zones
- HVAC Zone
- Emergency Lighting Zones

Highlight Floor Alarm Zones: HQ-19

- +
- 
- 📍
- 🔄
- A
- a



### Assets & Backgrounds

- Equipment
- Labels of Equipment
- Gross Area
- Labels of Gross Area
- Room
- Labels of Room
- Suite
- Labels of Suite
- Zones
- Labels of Zones
- regcompliance-assets
- regcompliance-labels
- DR
- PL
- PL-ELVTR
- PL-MISC
- PL-STAIR
- PL-STAIR-fills
- PL-TOIL
- WA

### Zone Details

The zone details displayed below are not restricted to the type of zone highlighted above.

Zone Code	Description	Building Code	Floor Code
FIRE-HQ19-01	HQ 19th Fire Zone 1 - Covers West Wing	HQ	19
FIRE-HQ19-02	HQ 19th Fire Zone 2 - Covers Bldg Core	HQ	19
FIRE-HQ19-03	HQ 19th Fire Zone 3 - Covers East Wing	HQ	19
SP-HQ19-01	HQ 19th Floor Sprinkler Zone 1 - Covers the Wes...	HQ	19
SP-HQ19-03	HQ 19th Floor Sprinkler Zone 3 - Covers the Eas...	HQ	19
SP-QH19-02	HQ 19th Floor Sprinkler Zone 2 - Covers the Core	HQ	19

# Utility Management

## Energy Console

Filter



Type  
All Energy

Time Period  
2015

Building Use

Construction Type

COUNTRY  
BUILDING

STATE

SITE

Display Units  
KWH

Show Clear

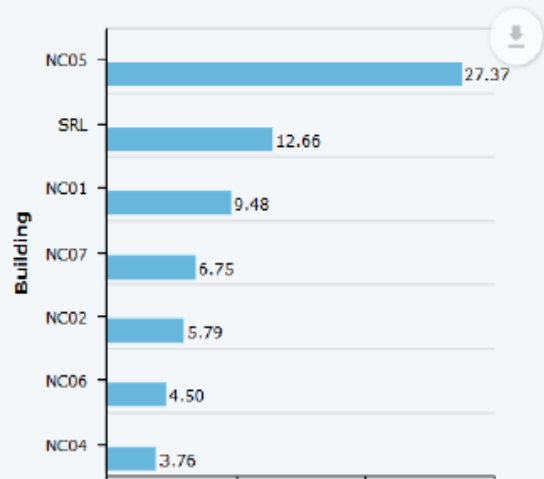
### Energy - Billed Use and Cost - 2015 (KWH)

Building Code	Building Name	Use (KWH)	% Difference from 2014	Use per Area (KWH)	Use per Person (KWH)	Use per Person per Day (KWH)	Cost	Cost per Area
NC01	TGD Headquarters	12,661,271	-11.7%	9.4841	7,173.52	19.65	\$554,401	
NC07	1100 Technology Park Dr	6,330,635	-11.7%	6.7505	5,949.85	16.30	\$277,201	
SRL	Singularity Research Lab	5,645,150	11.2%	12.6596	4,642.39	12.72	\$225,806	
NC05	TGD Technology Center	3,165,318	-11.7%	27.3747	6,305.41	17.28	\$138,600	

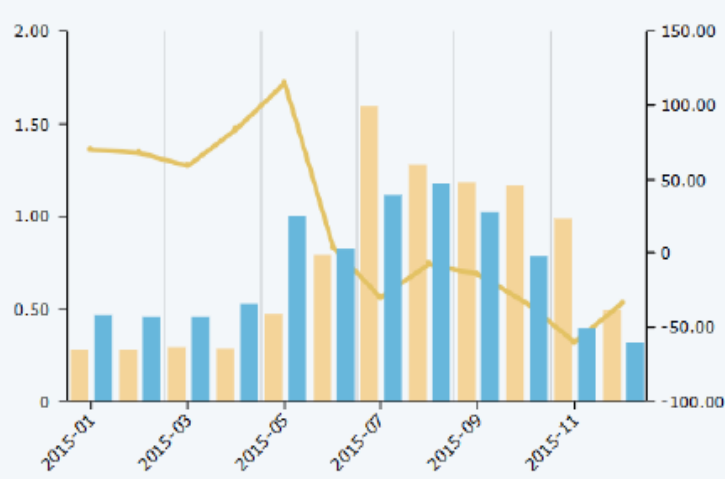
32,191,351

1,455,348

### Top 10 by Energy Use per Area - 2015 (KWH)

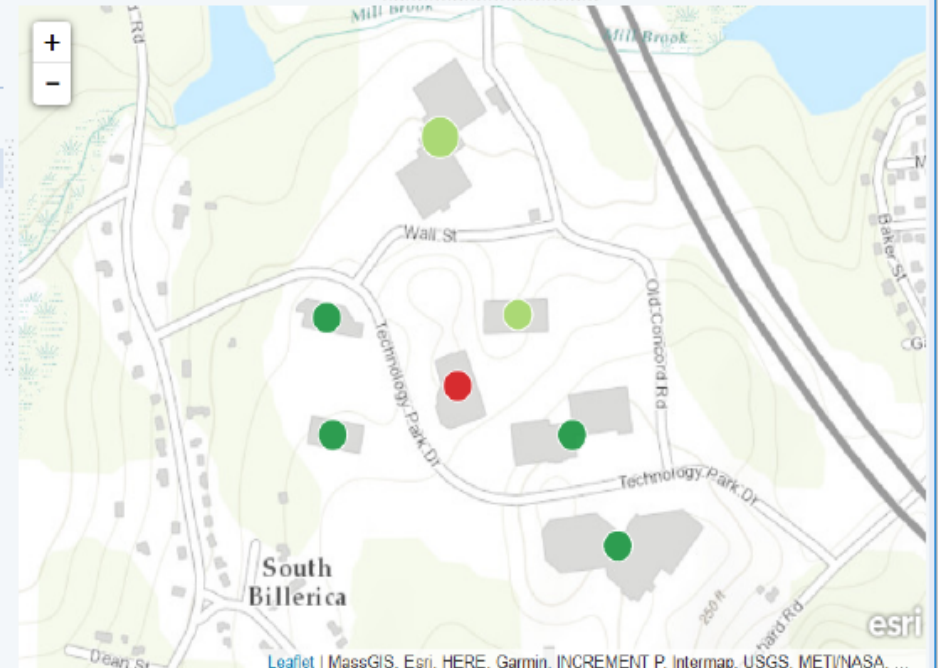


### Two Year Comparison - Energy Use per Area - 2015 (KWH)



### Heat Map - Energy Use per Area - 2015 (KWH)

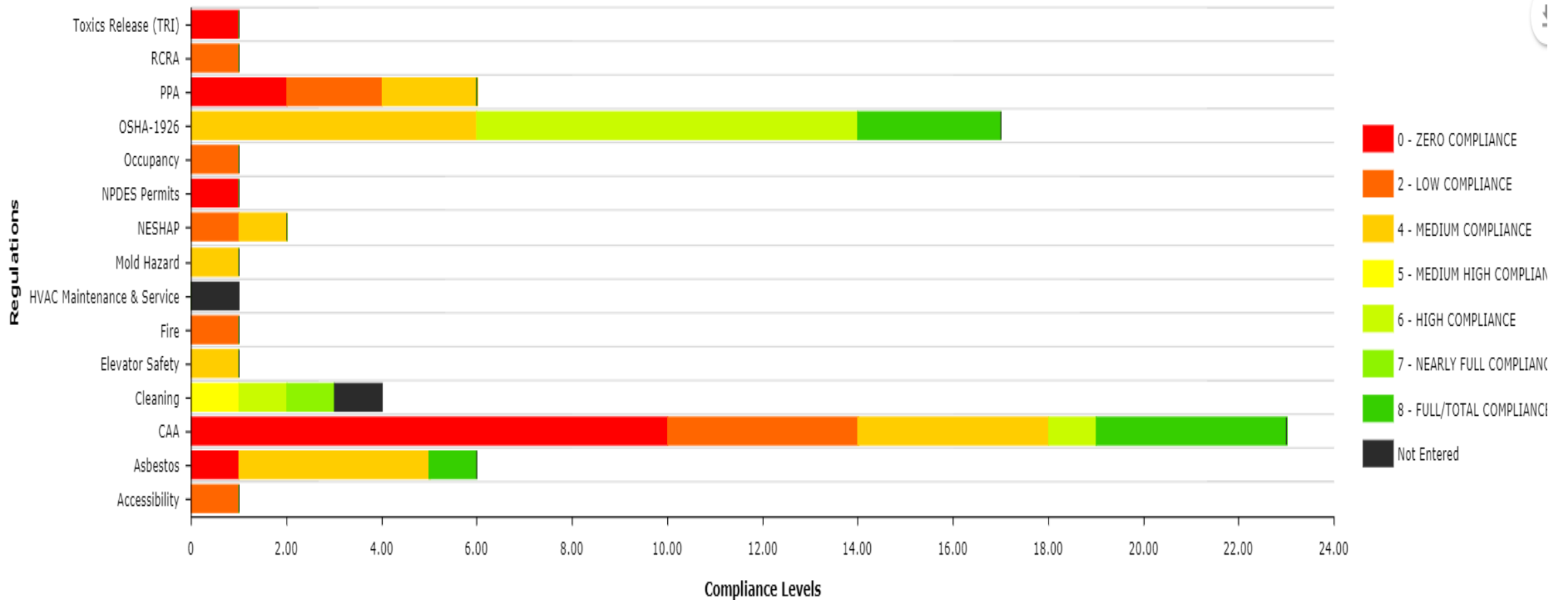
Total Annual Use (KWH): 32,191,351  
 Energy Equivalence: 1,220 ⚡  
 % Difference from 2014: -7.1% ↓  
 Compare by: Use per Area



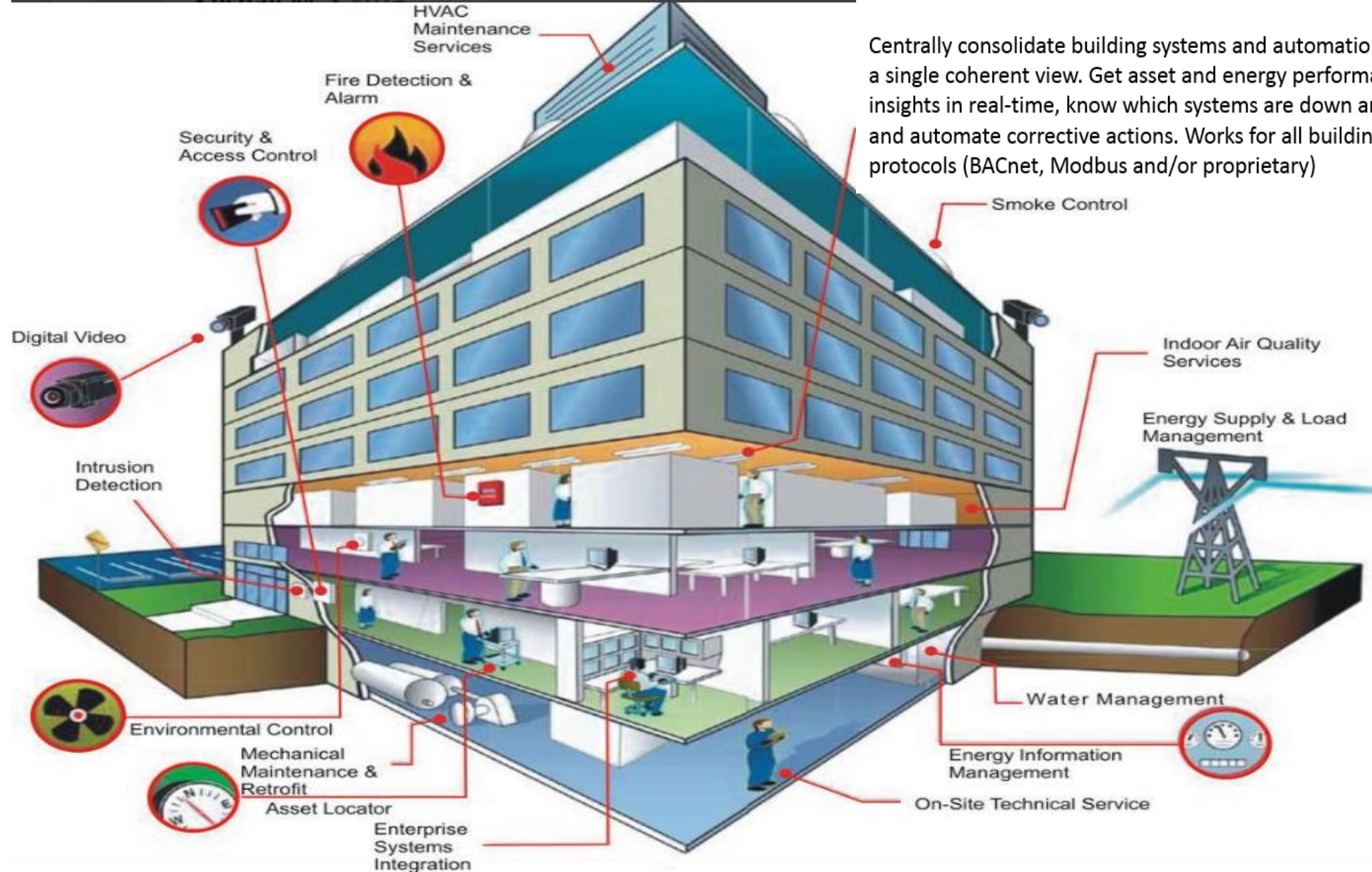
# Compliance Management

Chart Cross-Table

Chart: Compliance Program Count by Compliance Level and Regulation



# Consolidating Building Automation Systems



Centrally consolidate building systems and automation data in a single coherent view. Get asset and energy performance insights in real-time, know which systems are down and why, and automate corrective actions. Works for all building system protocols (BACnet, Modbus and/or proprietary)

# Project Management

## Project Proposal Console


Select Projects | Project Locations | Space Requirements | Asset Requirements | Project Dashboard | Gantt | Proposed Moves | Portfolio Scenario Comparison | Equipment Systems

**Proposed and Requested Asset Capital Projects** Reports ▾

Show My Projects ▾ Project Status All Open ▾ Criticality All ▾ More Clear Filter

Project Code	Project Name	Project Status	Cost - Est. Baseline	Criticality	Project Score	Date - Requested Start	Date - Requested End	Project Manager
2015-000001	Jansen Integration Opt 2	Proposed	\$8,500,000.00	Mission Critical	33.00	5/4/2015	5/30/2016	AFM
2015-000003	AHU Replacement 01	Proposed	\$515,000.00	Mission Critical	120.00	5/6/2017	6/30/2017	AFM
2015-000004	AHU Replacement 02	Proposed	\$562,000.00	Mission Critical				
2015-004836	SRL BIDMED Research Renovation - Q2 2015	Proposed	\$5,600,000.00	Mission Support				

**Project Location**



Project Code: 2015-000003  
City Code: BILLERICA  
Criticality: Mission Critical  
Project Proposed Cost: 0.00  
Project Proposed Area: 0.00  
Project Proposed Headcount: 0  
Campus: ATHENS-U  
Occupancy Count: 0.00  
Usable Area ft<sup>2</sup>: 250,836.96

**Project Evaluation**

Project Code:  Project Score:

- 2012-000006
- 2012-000007
- 2012-000009
- 2015-000003
- BOSMED - BASELINE

Totals:  
Average:  
Total records: 5

**Summary of Required Assets for '2015-000001'** [Create Requirements](#) [Add Baseline Locations](#)

Total of All Statistics:	Asset Count	Count of All Assets	320	Forecasted Cost	Forecasted Cost of All Assets	\$277,299.97	Forecasted Area	Forecasted Area of All Assets	23,577.84									
<b>Standard Asset Statistics:</b>	Count of Standard Equipment	187	Cost of Standard Equipment	\$236,517.97	Area of Standard Equipment	957.84	Count of Standard Furniture	132	Cost of Standard Furniture	\$22,782.00	Area of Standard Furniture	22,500.00	Total Count of Standard Assets	319	Total Cost of Standard Assets	\$259,299.97	Total Area of Standard Assets	23,457.84
<b>Individual Asset Statistics:</b>	Count of Individual Equipment	1	Cost of Individual Equipment	\$18,000.00	Area of Individual Equipment	120.00												


**List of Required Assets by Standard Count**

Business Unit	Division Code	Department Code	Functional Group Title	Equipment Standard	Furniture Standard	Baseline	Project Requirement	Cost of Requirement
CORPORATE	EXECUTIVE	MANAGEMENT	A-HP-LASERUET2				1.0	1.0 \$1,000.00
CORPORATE	EXECUTIVE	MANAGEMENT	A-PC				10.0	10.0 \$13,100.00
CORPORATE	FACILITIES	DESIGN	A-PC				25.0	25.0 \$32,750.00
CORPORATE	FACILITIES	MAINTENANCE	AY-DIG-CAH1				3.0	3.0 \$3,462.00
CORPORATE	FACILITIES	MAINTENANCE	BIO-ANAL-SYS				1.0	1.0 \$2,500.00
CORPORATE	FACILITIES	MAINTENANCE	BIO-DET-SYS				2.0	2.0 \$9,000.00
CORPORATE	FACILITIES	MAINTENANCE	EPWR				2.0	2.0 \$40.00
CORPORATE	FACILITIES	MAINTENANCE	FIREEX				3.0	3.0 \$161.97

**List of Required Individual Assets**

Asset Plan ID	Equipment Code	Furniture Code	Criticality	Business Unit Code	Division Code	Department Code	Description	Building Code
	SRL-271			1 CORPORATE	FACILITIES	MAINTENANCE	Boiler	SRL

**Project Location**



Mark Up for SRL - 03 - Evaluate vacant space

Evaluate vacant space to determine if Janssen's Business Administration DV personnel can be moved to this floor.



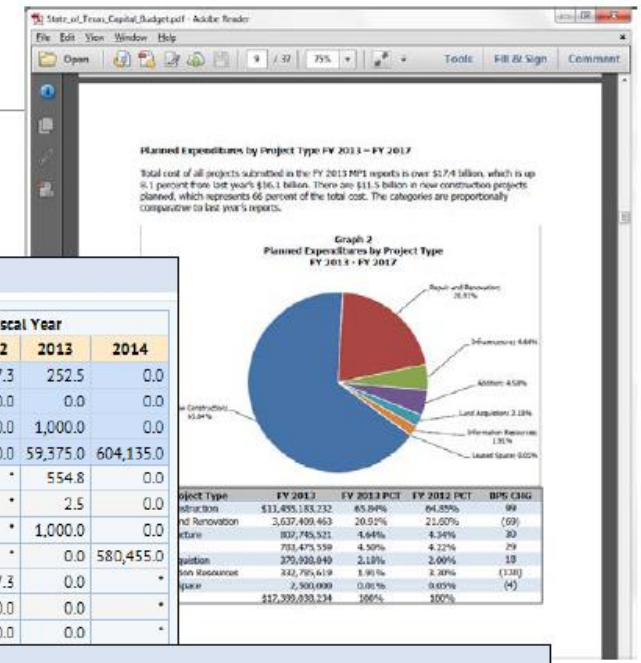
# Capital Budgeting

## Capital Budgeting



**Required Funding and Facility Condition's Index by Year -**

Project-Scenario-Building		Fiscal Year			
		Total	2012	2013	2014
Total	Avg Remaining FCI	314.1	1,127.3	252.5	0.0
	Min Remaining FCI	0.0	50.0	0.0	0.0
	Max Remaining FCI	5,000.0	5,000.0	1,000.0	0.0
	Funding Required	663,510.0	0.0	59,375.0	604,135.0
ASSESSMENT-HQ-17-2003-QTR2-FCI 2014-HQ	Avg Remaining FCI	277.4	*	554.8	0.0
	Min Remaining FCI	0.0	*	2.5	0.0
	Max Remaining FCI	1,000.0	*	1,000.0	0.0
	Funding Required	580,455.0	*	0.0	580,455.0
ASSESSMENT-JFK A-2009-QTR3-FCI 2014-JFK A	Avg Remaining FCI	563.7	1,127.3	0.0	*
	Min Remaining FCI	0.0	50.0	0.0	*
	Max Remaining FCI	5,000.0	5,000.0	0.0	*
	Funding Required	5,000.0	5,000.0	0.0	*
ENV-SUST-ASSESS-2ND-ANNUAL-3	Avg Remaining FCI	0.0	0.0	0.0	0.0
	Min Remaining FCI	0.0	0.0	0.0	0.0
	Max Remaining FCI	0.0	0.0	0.0	0.0
	Funding Required	0.0	0.0	0.0	0.0



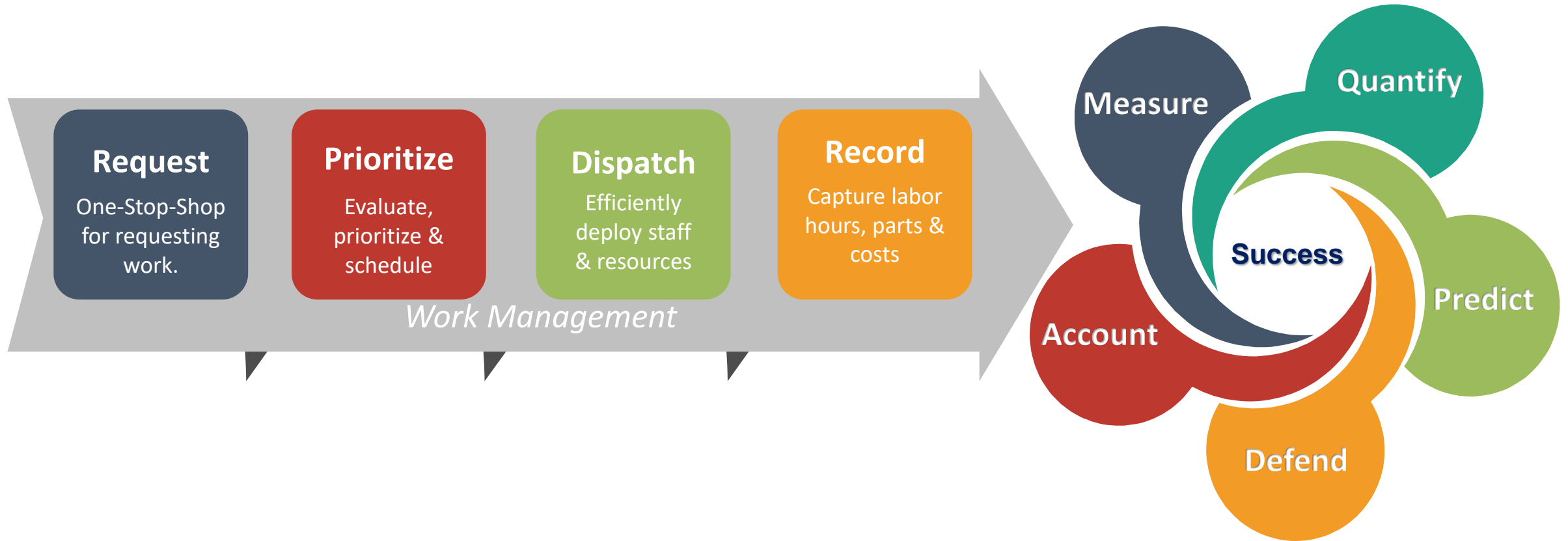
**Edit Budget Details**

Program Name		Fiscal Year					
		Total	2014	2015	2016	2017	2018
Total	Capital Total	440,000,000	88,000,000	88,000,000	88,000,000	88,000,000	88,000,000
	Expense Total	50,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Fleet Maintenance	Capital Total	0	0	0	0	0	0
	Expense Total	25,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Fleet Replacement	Capital Total	25,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
	Expense Total	0	0	0	0	0	0
Gas Main Replacement	Capital Total	400,000,000	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000
	Expense Total	0	0	0	0	0	0
Gas Meter Replacement	Capital Total	5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
	Expense Total	0	0	0	0	0	0
Gas Services	Capital Total	0	0	0	0	0	0
	Expense Total	25,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
New Customers	Capital Total	10,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
	Expense Total	0	0	0	0	0	0

# Key Takeaways

- Strong and supportive leadership is critical
- Need an internal champion
- Be clear on ownership and maintenance of data
- If hosting internally, need IT support
- Benefits outweigh costs. Do an ROI
- Pick your greatest pain point. Prioritize the rest
- Stay focused on the big picture

# On Demand Work



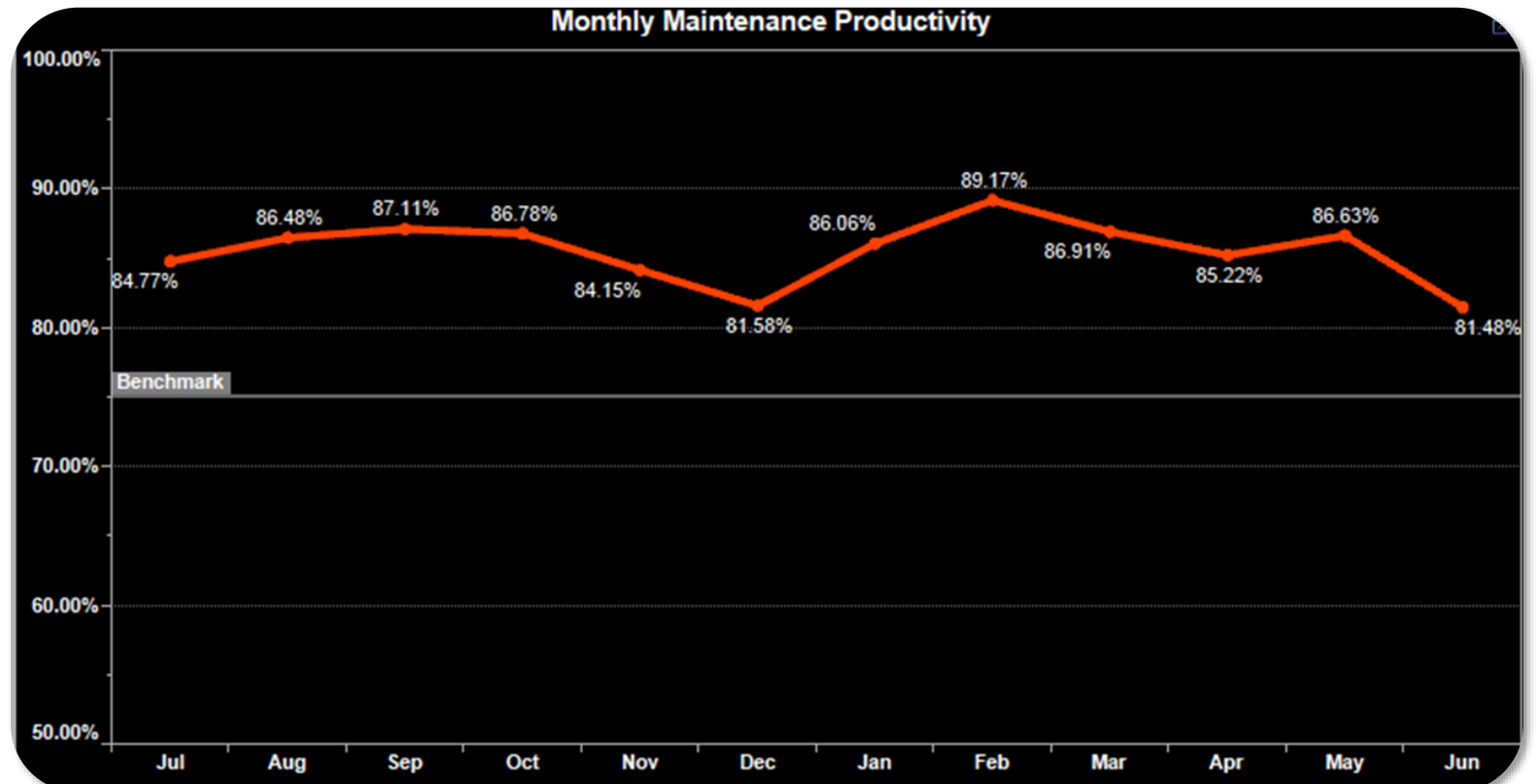
# On Demand - Measurable

- Key Performance Indicators
  - Measure Success
- Metrics
  - Track performance

**Goal: Productivity > 75%**

**Data: Labor charged to work request**

**Outcome: Dynamic access to data. KPI easily measurable.**



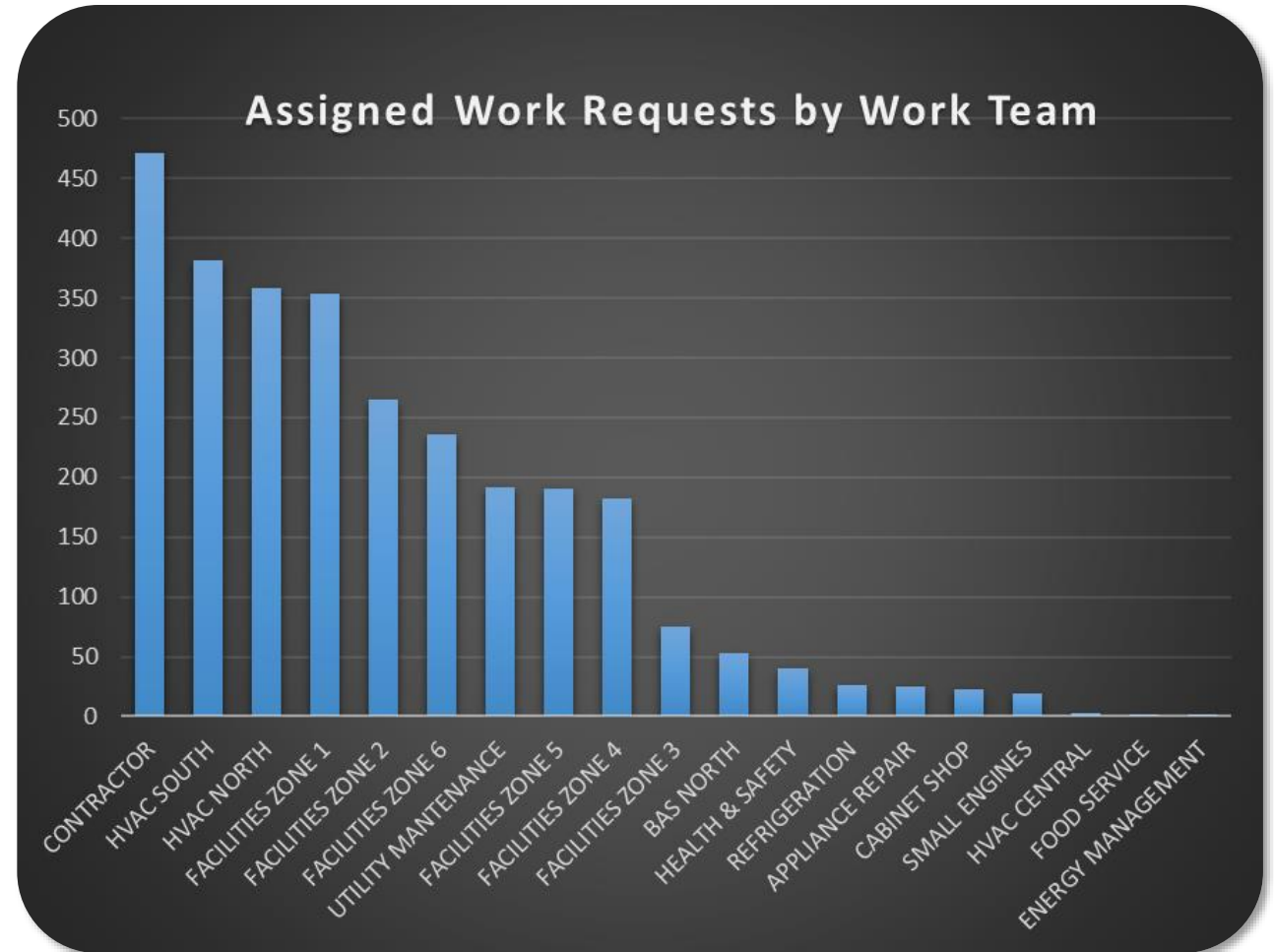
# On Demand - Quantifiable

- Monitor
  - Workload
  - Costs
  - Trends

**Goal:** Monitor work requests assigned to each work team

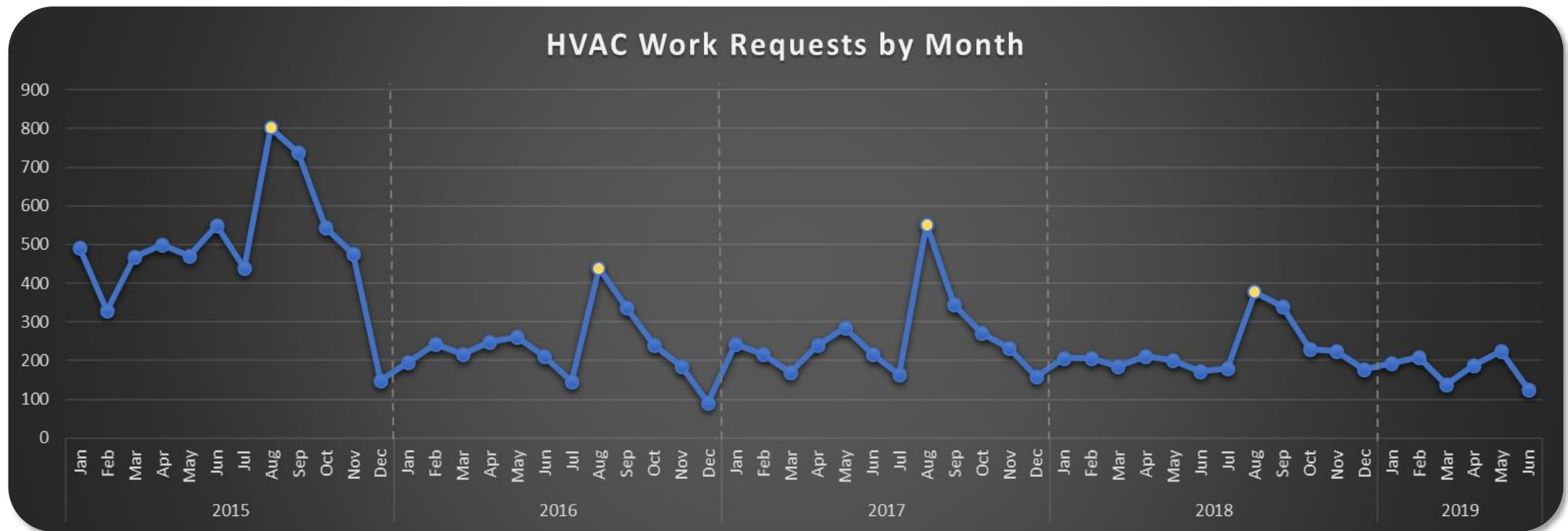
**Data:** Work request assignments within time period

**Outcome:** Dynamically monitor and make adjustments.



# On Demand - Predictable

- Forecast Maintenance Demand
- Anticipate Parts & Supply Needs



# On Demand - Defensible

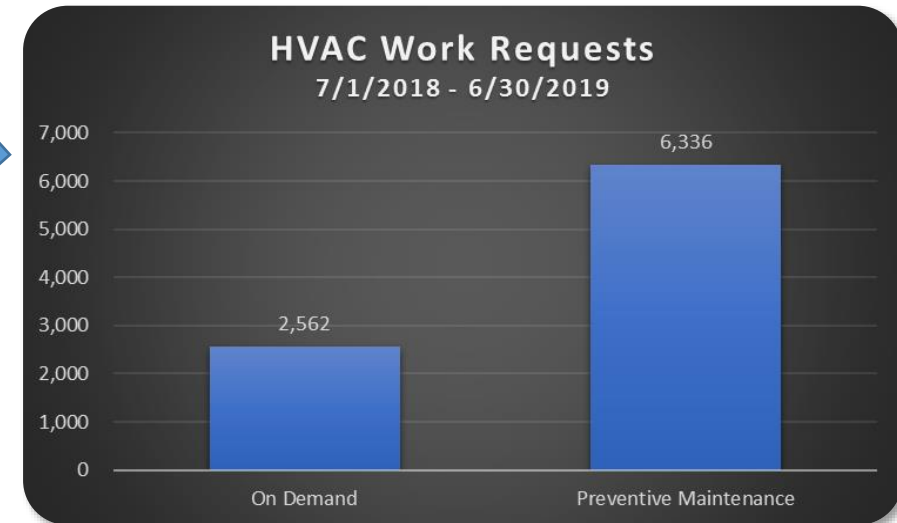
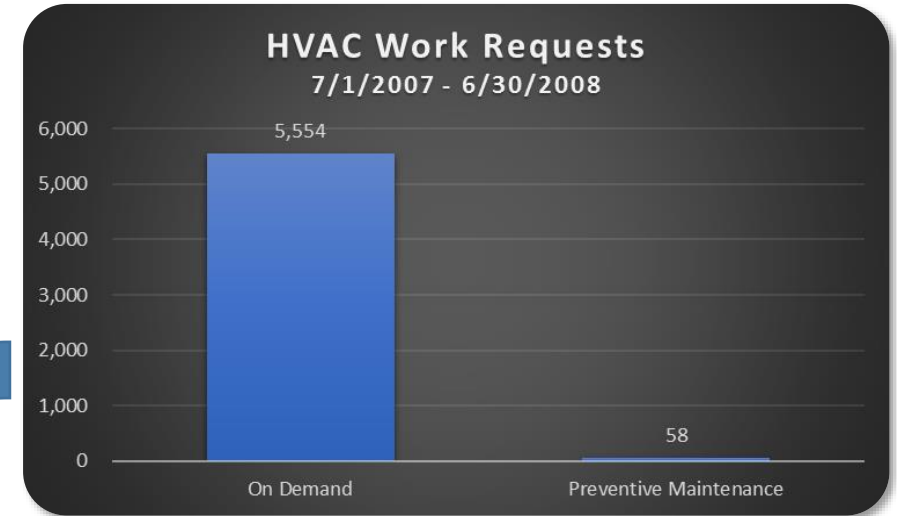
- Confident Decision-Making
- Data-Driven Planning



# Preventive Maintenance

- Proactive vs. Reactive
- Automatically Generate Work Requests
- Reduce Down-Time
- Forecast Workload & Costs
- Maintain Condition of Mechanical Equipment

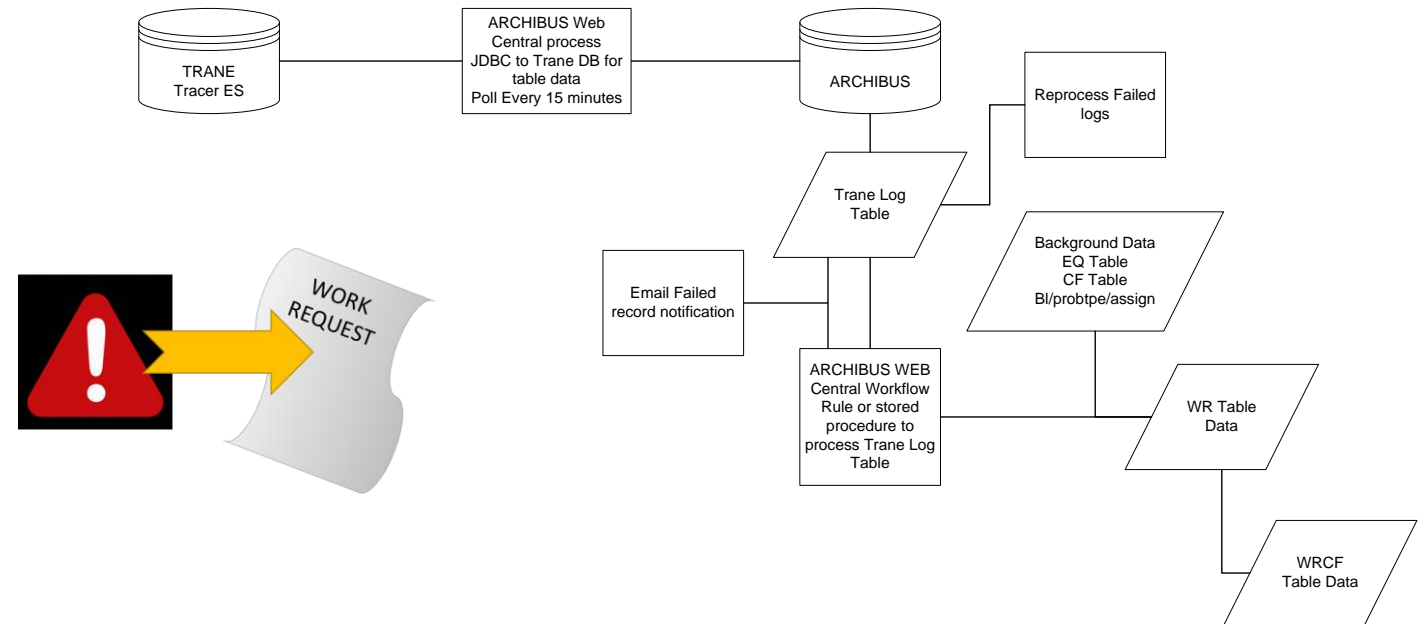
54%  
Decrease  
in On  
Demand  
Work





# System Integration – Energy Management

- Energy Management System Alarms Create Work Requests in FM System
- Real-Time Work Requests
- Reduced Down-Time
- No Data Entry
- Accurate Reporting



*Combining sub-processes from often disparate systems so as to increase value to the customer and improve quality and performance for the organization.*

# System Integration – eProcurement

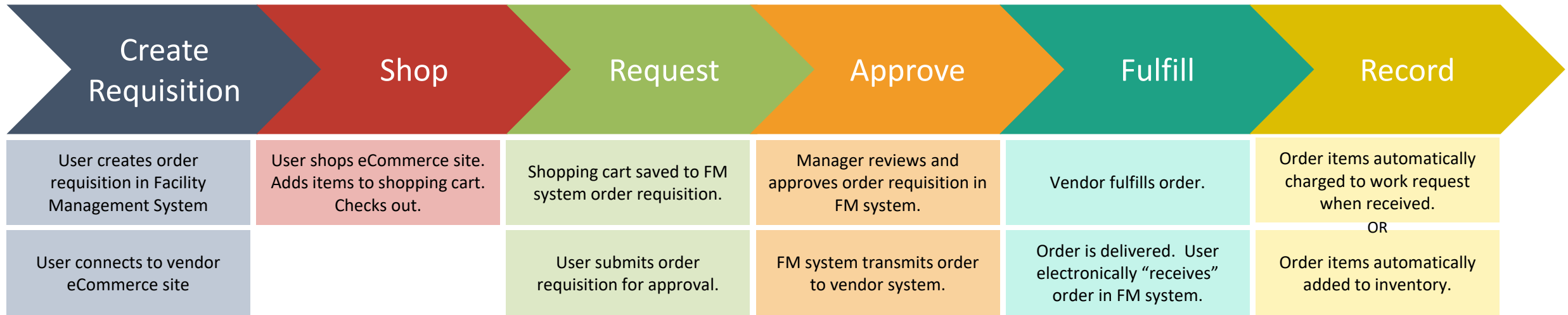
- Facility Management System Connects Directly to Vendor eCommerce Site

The screenshot displays two overlapping web interfaces. On the left is the ARCHIBUS 'Enterprise Admin Home Page' with a navigation menu including 'Applications' and 'Tasks'. The main content area is titled 'Order Parts' and shows 'Step 2: Requisition Parts from Vendor'. The 'Part Order Detail' section includes fields for Order ID (186470), Storeroom Code (00), Vendor Code (FASTENAL), Contract #, Order Status (Created), Requested by (GOMBOS, MELANIE), Issued By, Item Cost (0.00), Shipping Cost (0.00), Shipping Notes, Vendor Comments, and Notes. Below this is a 'Selected Parts' table with the message 'No records to display.'

On the right is the FASTENAL eCommerce site, accessed via a browser window. The page features the FASTENAL logo, a search bar, and navigation links for 'Browse', 'My Account', 'My Branch', and 'My Cart'. The breadcrumb trail shows 'Home > All Products'. The 'Search Term(s)' section includes a search input and a 'Search Within' dropdown. The 'My Availability' section lists 'My Branch (239)', 'EXPRESS (241)', and 'My Order History (1400)'. The 'Manufacturer' section includes a search input and a list of manufacturers with item counts: 10C TECHNOLOGIES (11), 2000Plus® (21), 31 INCORPORATED (126), 3M CANADA COMPANY (30), 3M Canada (14), and 3M FALL PROTECTION (8). A 'Special Interest' section at the bottom displays product images.

# System Integration – eProcurement

## eProcurement - Process



# System Integration – eProcurement

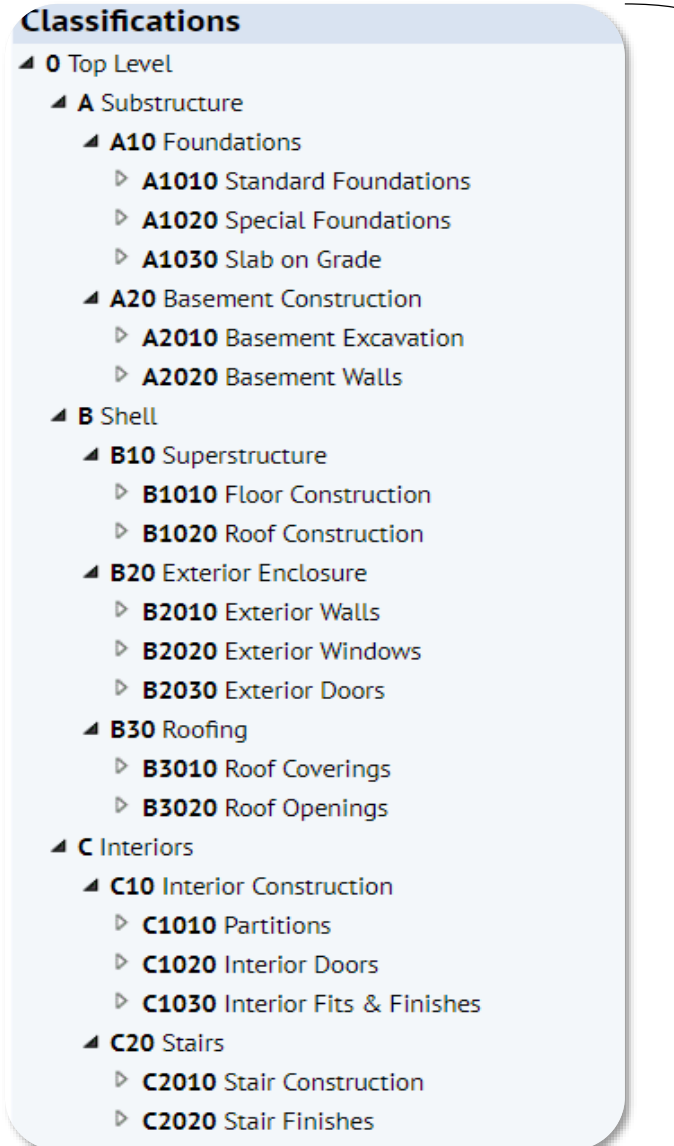
## Benefit

- Fewer Purchase Orders
- Easy & Efficient
- Reduced Windshield Time
- Accountability
- Reduced Data Entry
- Reduced Margin for Error



# Condition Assessment

- System-Level Reporting
- Strategic Point of View
- Proactive Approach
- Transparent Reporting
- Empowered Decision-making
- Quantifiable Results



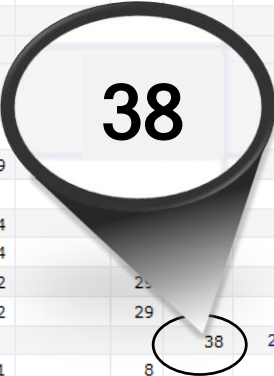
CSI  
Classifications

# Condition Assessment – System Level Analysis

- Granular Analysis
- Better Understanding of Deficiencies
- Aids in Project Scope Development

System-Level Costs and Ratings XLS | Select System Level

Systems	CSI Unit Price (RAW)	CSI Unit Price	CSI Unit of Measure	Qty	CSI Renewal Pct	Renewal Cost	CSI Life	Installed or Renewed	Calc. Next Renewal	Next Renewal	RSL	FCI%	Deficiency	Replacer Value
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>Each</b>		<b>100</b>	<b>36,390,372.34</b>	<b>100</b>					<b>9</b>	<b>3,242,272.81</b>	<b>35,210</b>
[-] Substructure (A)	0.00	0.00	Each		100	1,519,730.28	100						0.00	1,519
[-] Shell (B)	0.00	0.00	Each		100	10,278,246.19	100						116,263.76	9,650
[-] Interiors (C)	0.00	0.00	Each		100	7,190,470.07	100						762,606.10	6,800
[-] Services (D)	0.00	0.00	Each		100	12,613,910.20	100						363,402.95	12,590
[-] Conveying (D10)	0.00	0.00	Each		100	151,011.00	100						0.00	120
[-] Elevators and Lifts (D1010)	1.87	3.75	SF	33,558	120	151,011.00	35	2004	2039				0.00	120
[-] Plumbing (D20)	0.00	0.00	Each		0	2,011,449.56	0						0.00	1,860
[-] Plumbing Fixtures (D2010)	1.93	2.87	SF	198,522	110	1,261,099.84	30	1974	2004				0.00	1,190
[-] Domestic Water Distribution (D2020)	0.79	1.17	SF	198,522	110	471,825.71	30	1974	2004				0.00	420
[-] Sanitary Waste (D2030)	0.68	1.36	SF	171,738	110	246,960.12	50	1992	2042	2007	25		0.00	210
[-] Rain Water Drainage (D2040)	0.09	0.18	SF	140,297	120	31,563.89	50	1992	2042		29		0.00	200
[-] HVAC (D30)	0.00	0.00	Each		100	5,801,178.30	100						38	2,126,273.09
[-] Heat Generating Systems (D3020)	5.56	11.16	SF	322,398	100	1,058,605.56	30	1991	2021		8		0.00	1,030
[-] Cooling Generating Systems (D3030)	3.98	6.34	SF	193,934	100	1,582,223.00	25	1991	2016		3		0.00	1,580
[-] Distribution Systems (D3040)	4.28	8.59	SF	171,738	120	1,747,516.39	30	1992	2022	2007	0	95	1,401,148.65	1,470
[-] Terminal & Package Units (D3050-02)	9.48	14.07	SF	60,342	90	352,588.93	10	1984	1994	2019	6	48	186,044.77	390
[-] Controls & Instrumentation (D3060-01)	1.95	3.91	SF	322,398	100	725,682.18	20	1991	2011	2007	0	74	539,079.67	720
[-] Other HVAC Systems/Equip (D3090-03)	3.05	4.86	SF	1,012	105	5,164.24	25	2003	2028		15		0.00	0
[-] Thermal Storage Tanks (D3090-04)	1.37	2.18	SF	151,100	100	329,398.00	25	1991	2016		3		0.00	320
[-] Dry Type Fire Suppression (D40)	5.35	7.94	SF		105	498,518.81	20						0.00	460
[-] Sprinklers (D4010)	1.60	3.21	SF	137,740	105	498,518.81	25	1992	2017		4		0.00	460
[-] Electrical (D50)	0.00	0.00	Each		100	4,151,752.53	100						5	237,129.86
[-] Electrical Service/Distribution (D5010)	5.78	8.58	SF	354,484	90	900,821.74	30	1974	2004		0		0.00	970
[-] Lighting and Branch Wiring (D5020)	5.97	8.86	SF	203,384	90	2,640,605.77	20	1974	1994	2022	9		0.00	2,930
[-] Communications & Security (D5030)	0.00	0.00	Each		100	571,937.10	100						36	233,867.72
[-] Intercom & Telephone Systems (D5030310-02)	0.27	0.54	SF	114,954	80	44,879.46	10	1992	2002		0	80	45,037.65	500
[-] Telephone & Intercom Systems (D5030310-03)	0.27	0.54	SF	56,344	80	24,340.61	10	1992	2002		0	32	9,878.25	0
[-] Fire Alarm System (D5030910-04)	1.05	2.11	SF	171,298	90	338,533.68	10	1992	2002		0	13	47,084.64	0



# Condition Assessment – FCI

- Facility Condition Index
- Review Rankings
- Evaluate Competing Projects
- Prioritize Work
- Develop Budget

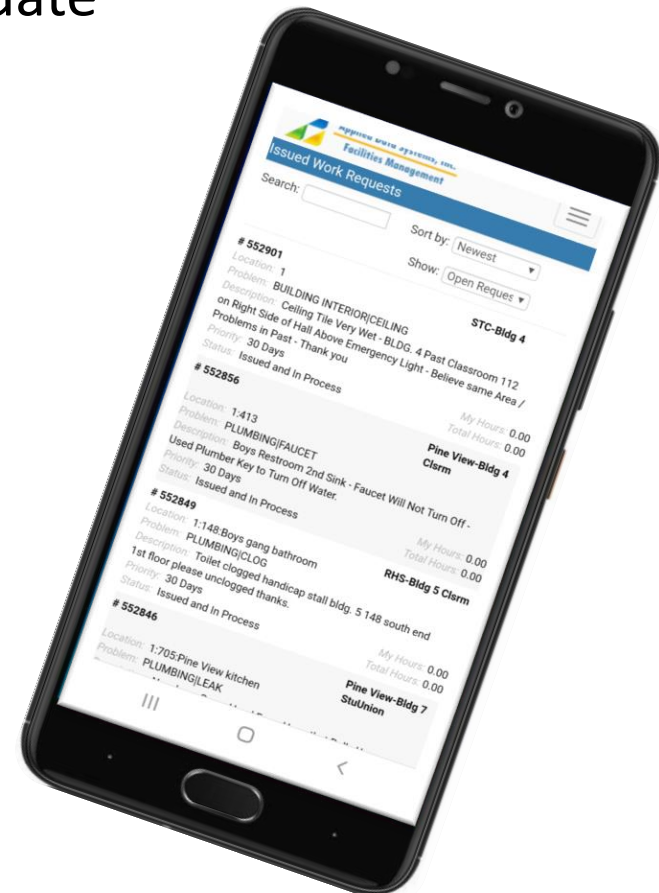
Site Code	Deficiency Cost	Replacement Cost	Facility Condition Index
036	474,654	985,259	48
007	7,539,987	27,416,396	28
011	13,828,185	48,569,799	28
037	11,131,661	41,939,769	27
044	474,278	1,777,724	27
024	15,767,176	58,274,965	27
001	4,076,621	18,077,911	23
056	6,883,868	32,869,274	21
002	111,225	616,346	18
052	6,470,271	37,746,957	17
013	3,370,926	20,102,588	17
080	5,346	33,763	16
055	5,470,232	36,376,325	15
049	1,555,586	12,136,249	13
038	61,844	492,855	13
008	1,322,268	10,744,303	12
047	3,061,785	24,580,211	12
010	1,336,411	10,879,957	12
082	1,898,305	17,182,386	11
081	73,340	675,382	11
086	83,195	786,076	11
015	1,589,794	14,205,950	11

*Facility management benchmark used to objectively assess the current and projected condition of a building.*

# Mobile Technology

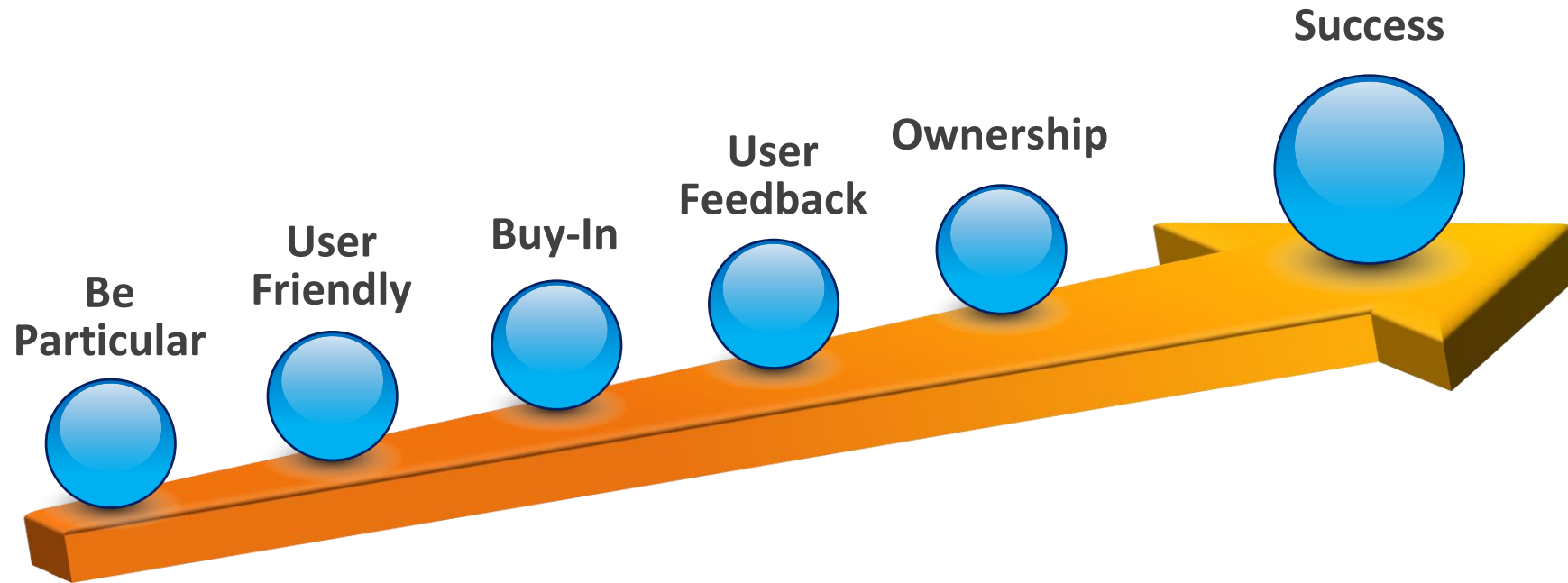
## Benefit

- 50 Maintenance Technicians using mobile app to update work requests from their phone
- 6,000 hours / year completing paperwork
- 1,440 hours / year in data entry time
- 120 lb. paper / year





# Mobile Technology – Path to Success



# Space Management

- Plan with Insight.
- Simplify strategic space planning and forecasting to support multifaceted space planning requirements.

**Space Console**

Locations

Building	Floor	Drawing	Room Area ft <sup>2</sup>	Capacity	Occupancy	Room
0041	01	bcc-n-41fp1	29,598.00	0	91	
0041	02	bcc-n-41fp2	27,847.00	0	4	

Organizations: Restrict to 0041

Category/Type	Description	Total Area ft <sup>2</sup>	Room Count	Legend	Edit
[unassigned]		2,917.00	16		Assign
110		1,576.00	1		Assign
CLASSROOM		7,621.00	10		Assign
CONFERENCE R		870.00	2		Assign
CORRIDOR	corridor	614.00	1		Assign
CUSTODIAL ST		206.00	6		Assign
ELECTRICAL R	electrical r	540.00	5		Assign
ELEVATOR LOB	elevator	1,359.00	2		Assign
ELEVATOR MAC	lob	60.00	1		Assign
GENERAL USE	General Use	645.00	2		Assign

**Space Planning Console**

Filter: Building Code, Room Category, Division Code, Date: 7/10/2019, Department Code, Pending Requests Only

Select Floor: 0047 (01 bcc-n-47fp1, 02 bcc-n-47fp2, 03 bcc-n-47fp3)

Highlight Rooms for Floor: 0047-01

Workspace Transactions: Assign Room Attributes

Legend	Total Count	Total Area ft <sup>2</sup>
Non-Occupiable	20	5,189.00
Vacant	13	6,874.00
Available	0	0.00
At Capacity	0	0.00
Exceeds Capacity	0	0.00
<b>Total</b>	<b>33</b>	<b>12,063.00</b>

Define Locations

Site	Building	Floor	Room
Building Code	0047	Floor Code	01
Room Code	001020	Room Name	COMPUTER LAB
Room Category	CLASSROOM	Room Type	
Room Standard		Employee Capacity	0
Division Code		Department Code	
CID Sq Ft	731.00	Drawing Sq Ft	731.00
Priorate	NONE	Room Survey Redline	Upload a document
Date Last Surveyed	5/21/2019	Survey Photo	Upload a document

# Space Inventory

**Locations**

Building	Floor	Drawing	Room Area ft <sup>2</sup>	Capacity	Occupancy	Room
0041	01	bcc-n-41fp1	29,598.00	0	91	
0041	02	bcc-n-41fp2	27,847.00	0	4	

**Room Categories**

Category/Type	Description	Total Area ft <sup>2</sup>	Room Count	Legend	Edit
[Unassigned]		2,917.00	16		Assign
110		1,576.00	1		Assign
CLASSROOM		7,621.00	10		Assign
CONFERENCE R		870.00	2		Assign
CORRIDOR	corridor	614.00	1		Assign
CUSTODIAL ST		206.00	6		Assign
ELECTRICAL R	electrical r	540.00	5		Assign
ELEVATOR LOB	elevator lob	1,359.00	2		Assign
ELEVATOR MAC		60.00	1		Assign
GENERAL USE	General Use	665.00	2		Assign

**Selected Rooms and Employees**

Building	Floor	Room	Division	Department	Category	Type	Capacity	Drawing Sq. Ft.
0041	01	00149A			LABORATORY		0	543.00
0041	01	001500			LABORATORY		0	638.00
0041	01	001510			LABORATORY		0	766.00
0041	01	001520			CLASSROOM		0	766.00
0041	01	00152A			LABORATORY		0	194.00
0041	01	00152B			LABORATORY		0	72.00
0041	01	001530			110		0	1,576.00
0041	01	001540			LABORATORY		0	1,507.00
							0	8,067.00

Building Code\* 0041  
Floor Code\* 01  
Room Code\* 00149A  
Drawing Sq. Ft. 543.00  
Employee Capacity 0

Division Code  
Department Code  
Room Category LABORATORY  
Room Type

Save Delete Cancel

- Ability to integrate CAD drawings.
- Evaluate and plan space usage to maximize efficiency and decrease total occupancy costs.
- Improves evaluation of building performance and enables accurate benchmarking.
- Enhances design/planning capabilities to use space more efficiently.

# Personnel, Assets & Occupancy

The screenshot displays the Broward College Space Console interface. The main view shows a floor plan with several rooms. Room 001200 is highlighted in yellow and labeled with the names ACASTANE, JSOOTKIN, and SEDELSTE. A blue arrow points from the top of the screen to this room. A pop-up window titled 'Selected Rooms and Employees' is open, showing a table with columns for Employee Name, Building Code, Floor Code, Room Code, Employee Standard, Division Code, and Department Code. The table contains one entry for KHOBAN. Below the table, there are input fields for Employee Name, Building Code, Floor Code, Room Code, Employee Standard, Division Code, and Department Code, with the values from the table populated. The interface also includes a sidebar with filters for Locations and Employees, and a top navigation bar with options like 'Space Console', 'Applications', and 'Tasks'.

Employee Name	Building Code	Floor Code	Room Code	Employee Standard	Division Code	Department Code
<input checked="" type="checkbox"/> KHOBAN	0041	01	001530	FAC		

Employee Name:   
Building Code:   
Floor Code:   
Room Code:   
Employee Standard:   
Division Code:   
Department Code:

- Provides immediate, accurate reporting of occupancy statistics for space usage and re-balancing purposes
- Improves forecasting accuracy for future needs based on current room availability and planned occupancy growth
- Simplifies assignment of employees to temporary or permanent available space using highlighted drawings

# Move Management

**BROWARD COLLEGE** | www.broward.edu | BC Fac-Exec-Mgt | Applications | Tasks | JIGLESIA | Sign Out | Find a form or report

**Space Console** | Space | Occupancy

Highlights: Room Categories | Borders: Room Types | Labels: Employees

**Locations** | Recent | Add New

0041 FLOOR ROOM  
DIVISION DEPARTMENT  Unassigned  
EMPLOYEE  Vacant only | More | Clear | Filter

Building	Floor	Drawing	Room Area ft <sup>2</sup>	Capacity	Occupancy	Room
<input checked="" type="checkbox"/>	0041	01	bcc-n-41fp1	29,598.00	0	91
<input checked="" type="checkbox"/>	0041	02	bcc-n-41fp2	27,847.00	0	4

57,445.00 | 0 | 95

**Employees** | Restrict to 0041 | Unassigned | Add New

0 selected | Place in Waiting Room | Unassign

Employee Name	Location	Organization	Edit
<input type="checkbox"/> ACASTANE	0041 -01 -001200		
<input type="checkbox"/> AJOHNS08	0041 -01 -001640		
<input type="checkbox"/> ARITCHIE	0041 -01 -001320		
<input type="checkbox"/> BMOURADI	0041 -01 -001340		
<input type="checkbox"/> BPATRICK	0041 -01 -001040		
<input type="checkbox"/> BSHERMAN	0041 -01 -001250		
<input type="checkbox"/> BSMITH	0041 -02 -002210		
<input type="checkbox"/> BWEINTRA	0041 -01 -001380		

Total records: 95

BCC-N-41FP2

BCC-N-41FP1

From simple, single-person moves to multi-phased moves integrated with construction, Move Management streamlines the move/add/change process enabling successful relocations with minimal disruption.

# Individual & Group Move Activities

- Request Employee Moves.
- Edit My Moves.
- Request a Group Move.
- Review and Estimate Moves.
- Route Moves for Approval.
- Examine Group Move Spreadsheet.
- Issue/Approve/Complete Moves.
- Define Move Questionnaires.



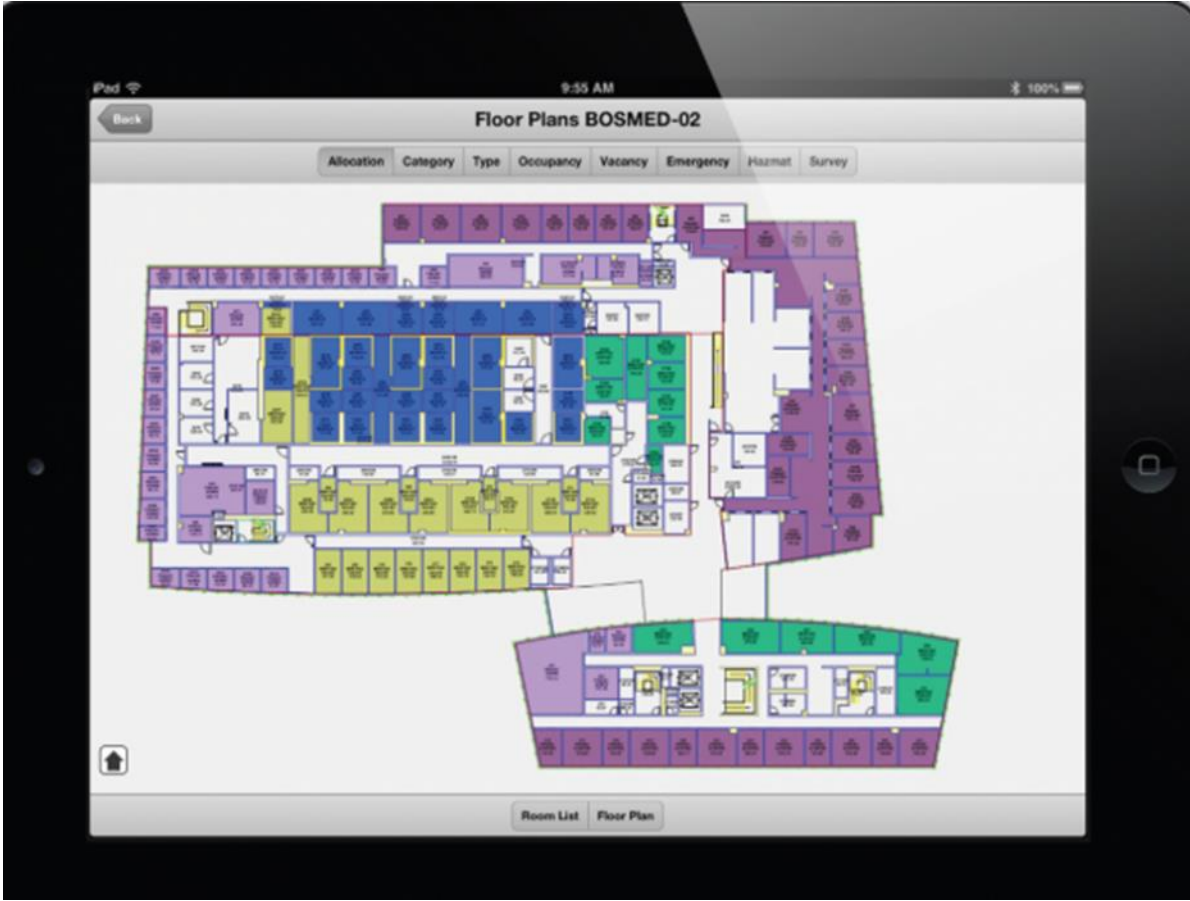
**\*Demo\* Move Console**

Move List

REQUESTOR BUILDING DEPARTMENT Status Move Start From Move Start To Project Description Move Type All Clear Filter

Project Code / Move Order	Move Type	Requestor	Project Status	Building Code	Department Code	Date - Requested Start	Date - Requested End	Date - Created	Project Description
<b>Requested (9/9)</b>									
<input type="checkbox"/> TEST11	Group	AFMDEMO	Requested	SRL	ENGINEERING	5/6/2019	5/31/2019	5/6/2019	THIS IS MY PROJE
<input type="checkbox"/> 2015-006384	Group	AFM	Requested	DURPARK	INFORMATION SVCS	7/15/2019	10/8/2019	8/22/2019	DURHAM PARK Orig Restructure - Q3 2015
<input type="checkbox"/> 2015-001301	Group	AFM	Requested	DALLASHQ	MANAGEMENT	12/2/2019	12/7/2019	8/22/2019	DALLAS HQ Reallocation - Nov 2015
<input type="checkbox"/> 199701484	Employee Leaving	AFMDEMO	Requested	SRL	ENGINEERING	5/28/2019		5/21/2019	TEST
<input type="checkbox"/> 199701483	New Hire	AFMDEMO	Requested		CONSTRUCTION	5/28/2019		5/21/2019	TEST - RZ
<input type="checkbox"/> 199701482	Employee	AFMDEMO	Requested	HQ	CONSTRUCTION	5/28/2019		5/21/2019	TEST - RZ
<input type="checkbox"/> 199701481	Employee	AFMDEMO	Requested	XC	CONSTRUCTION	5/28/2019		5/21/2019	TEST - RZ
<input type="checkbox"/> 199701155	Asset	AFMDEMO	Requested		ENGINEERING	3/7/2019		3/7/2019	Move this asset
<input type="checkbox"/> 199701147	Asset	AFMDEMO	Requested		ENGINEERING	3/4/2019		3/4/2019	test
<b>Requested-Estimated (1/1)</b>									
<input type="checkbox"/> 199701479	Employee	AFMDEMO	Requested-Estimated	JANSEN	ENGINEERING	5/4/2019		5/3/2019	
<b>Requested-Routed for Approval (5/5)</b>									
<input type="checkbox"/> MOVE - JFK SALE - 21	Group	FOGGNANCY	Requested-Routed for Approval	XC		10/25/2017	6/8/2015	5/2/2015	Move Project 21
<input type="checkbox"/> GROUP MOVE TEST	Group	AFMDEMO	Requested-Routed for Approval	HQ	ENGINEERING	3/7/2019	3/14/2019	3/7/2019	Just a test
<input type="checkbox"/> FACILITIES MOVE TO SRL-03	Group	AFM	Requested-Routed for Approval	SRL	ENGINEERING	9/8/2018	9/27/2018	7/25/2017	Phase 1 Move
<input type="checkbox"/> 199701152	Asset	AFMDEMO	Requested-Routed for Approval			3/7/2019		3/6/2019	test
<input type="checkbox"/> 199701148	Asset	AFMDEMO	Requested-Routed for Approval			3/4/2019		3/4/2019	test
<b>Approved (2/2)</b>									
<input type="checkbox"/> JANSEN - FAC MOVE TO SRL-03	Group	AFM	Approved	SRL	ENGINEERING	9/8/2018	9/27/2018	7/25/2017	Phase 1 Move
<input type="checkbox"/> 199701153	Asset	AFMDEMO	Approved			3/13/2019		3/6/2019	test
<b>Issued-In Process (19/19)</b>									
<input type="checkbox"/> PN-2020-MEXWARE-MOVE-0096	Group		Issued-In Process	MEXWARE		7/3/2020	12/30/2020	9/24/2017	
<input type="checkbox"/> PN-2019-MEXWARE-MOVE-0096	Group		Issued-In Process	MEXWARE		7/3/2019	12/30/2019	9/24/2017	
<input type="checkbox"/> PN-2018-MEXWARE-MOVE-0096	Group		Issued-In Process	MEXWARE		7/3/2018	12/30/2018	9/24/2017	
<input type="checkbox"/> PN-2017-MEXWARE-MOVE-0096	Group		Issued-In Process	MEXWARE		7/3/2017	12/30/2017	9/24/2017	
<input type="checkbox"/> PN-2016-MEXWARE-MOVE-0096	Group		Issued-In Process	MEXWARE		7/3/2016	12/30/2016	9/24/2017	
<input type="checkbox"/> PN-2015-MEXWARE-MOVE-0096	Group		Issued-In Process	MEXWARE		7/3/2015	12/30/2015	9/24/2017	

# Mobile Applications



Provide a streamlined mobile experience for staff in the field

# Maintenance (Mobile App)

Facilitates craftsperson's updating and completing work while in the field and also enhances the quality and accuracy of information.

Personal have access to:  
Create Work Request

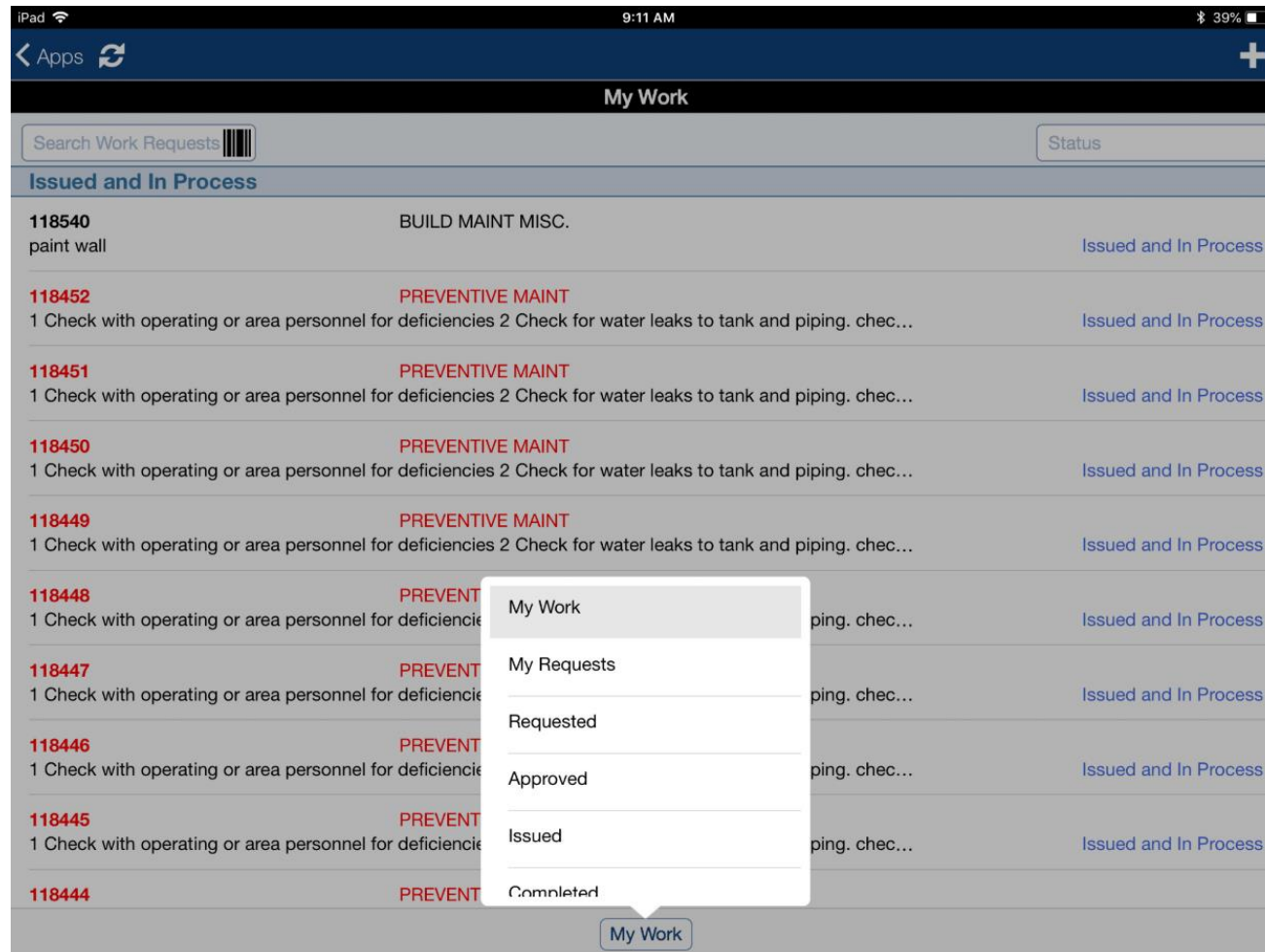
The screenshot displays the 'Create Work Request' form on an iPad. The status bar at the top shows 'iPad', signal strength, Wi-Fi, time '9:11 AM', and battery level '39%'. The app's navigation bar includes a back arrow, camera, location, 'Redline', and 'Save' buttons. The form fields are as follows:

Field	Value	Actions
Requested By	JIGLESIA	
Site Code	10	✕ >
Building Code	0023	✕ >
Floor Code	02	✕ >
Room Code	002190	✕ >
Problem Location		
Problem Type		✕ >
Equipment Code	No Equipment to Display	>
Description		✍



# Review Work

- Review Work:
  - Requested, assigned to
  - Different Statuses
  - Completed Work

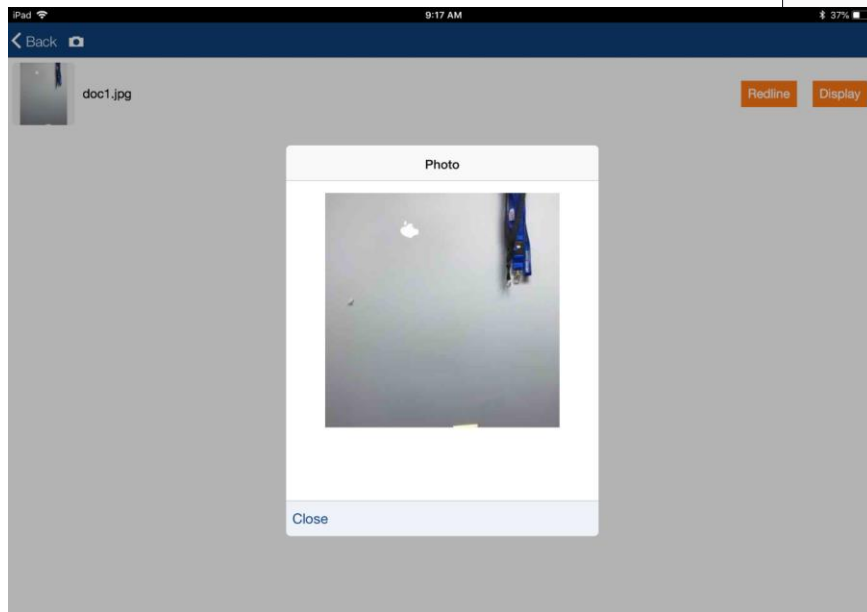


# Update Work Request

- Update Work Request:
- Add Notes, Review Request
- View/Add Documents
- Change Status Depending on Access (Role)
- Complete Work.

Update Work Request	
Requested By	JIGLESIA
Site Code	20
Building Code	0041
Floor Code	01
Room Code	001030
Problem Location	Next to door
Problem Type	BUILD MAINT MISC.
Work Request Status	Issued and In Process
Cause Code	
Repair Type	
Equipment Code	No Equipment

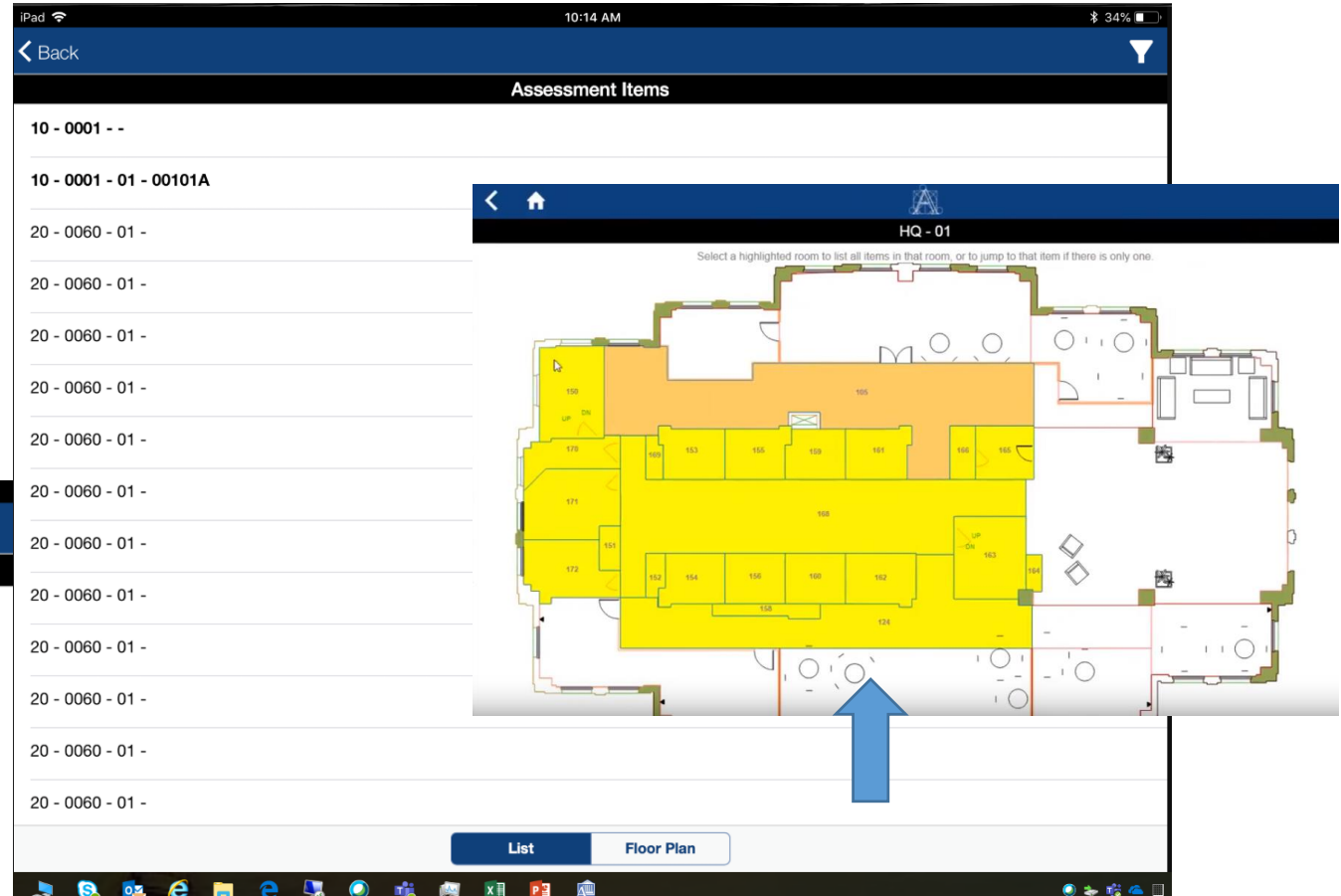
Craftspersons	
Request: 118640	
HAUGHTON, ERIC	Hours: 1.00
IGLESIAS, JONATHAN	Hours: 0.00



# Condition Assessment (Mobile)

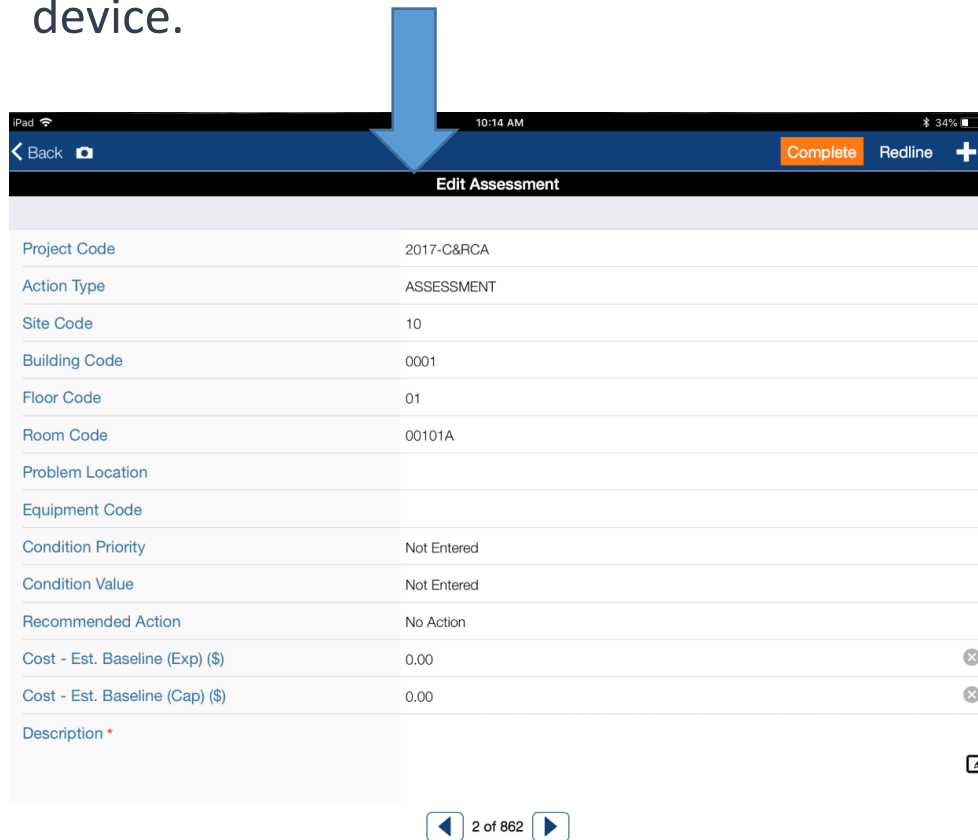
Facilitates craftsperson's updating and completing Assessment Projects assigned to them with the option of:

- Reviewing their work queue.



# Assessment (Mobile Application)

- Review and update the assessment records with current conditions.
- Look for assessment items on the mobile device.

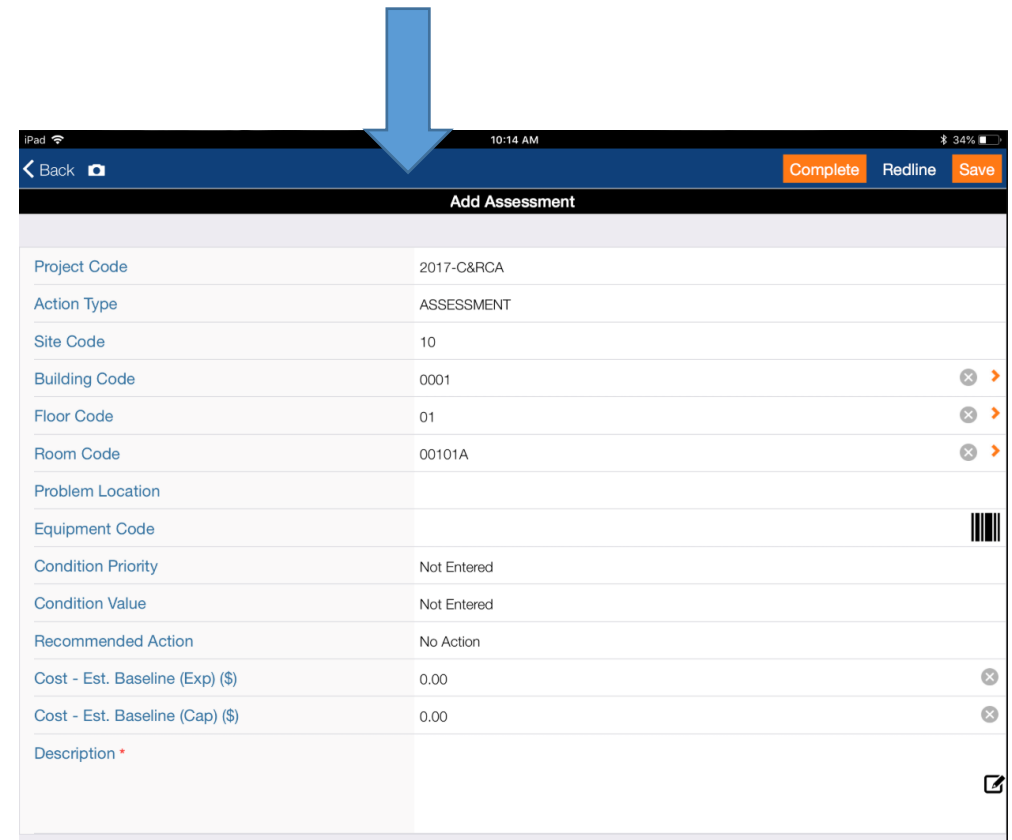


The screenshot shows the 'Edit Assessment' screen on an iPad. The top navigation bar includes a back arrow, a camera icon, the title 'Edit Assessment', and buttons for 'Complete', 'Redline', and a plus sign. The main content area is a form with the following fields:

Project Code	2017-C&RCA
Action Type	ASSESSMENT
Site Code	10
Building Code	0001
Floor Code	01
Room Code	00101A
Problem Location	
Equipment Code	
Condition Priority	Not Entered
Condition Value	Not Entered
Recommended Action	No Action
Cost - Est. Baseline (Exp) (\$)	0.00
Cost - Est. Baseline (Cap) (\$)	0.00
Description *	

At the bottom, there is a pagination indicator showing '2 of 862' with left and right navigation arrows.

- Spot a condition in the field and create new assessment record.



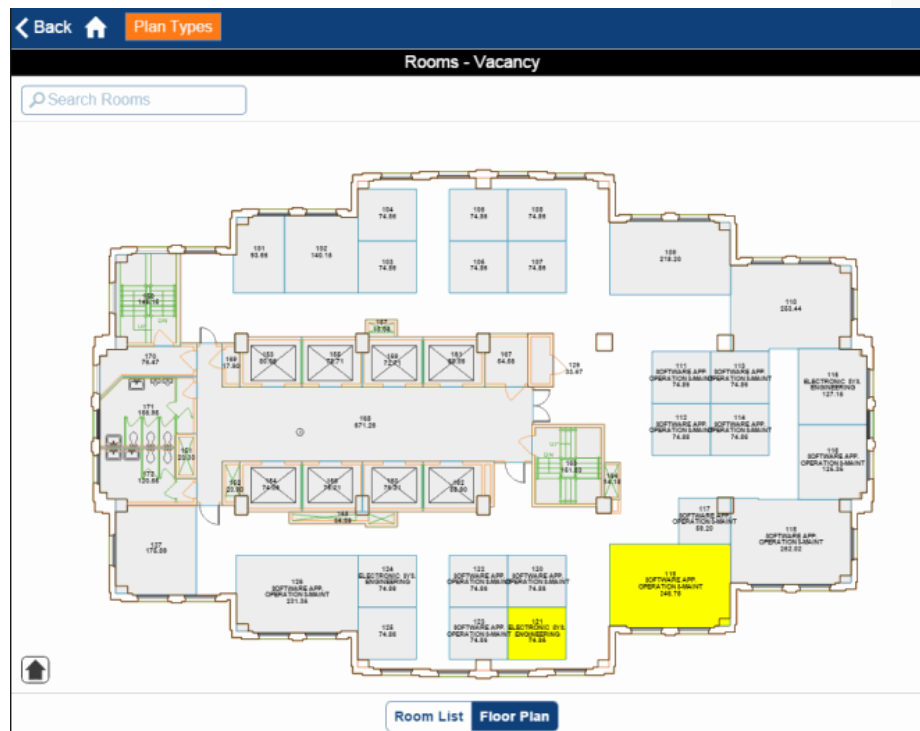
The screenshot shows the 'Add Assessment' screen on an iPad. The top navigation bar includes a back arrow, a camera icon, the title 'Add Assessment', and buttons for 'Complete', 'Redline', and 'Save'. The main content area is a form with the following fields:

Project Code	2017-C&RCA
Action Type	ASSESSMENT
Site Code	10
Building Code	0001
Floor Code	01
Room Code	00101A
Problem Location	
Equipment Code	
Condition Priority	Not Entered
Condition Value	Not Entered
Recommended Action	No Action
Cost - Est. Baseline (Exp) (\$)	0.00
Cost - Est. Baseline (Cap) (\$)	0.00
Description *	

At the bottom, there is a pagination indicator showing '2 of 862' with left and right navigation arrows.

# Space & Occupancy Survey (Mobile Application)

- Facilitates verification of space allocation.
- Employee location, access basic space information.
- Access floor plan drawings on a tablet.



# Future Projects)

- Capital Budgeting
- Energy Management
- Lease Management
- Emergency Management