



penbaysolutions  
seeplanmanageprotect

# Facilities GIS:

*The Value of Location in Facilities Management*

Esri DC GIS Meet-Up

November 18, 2016



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# Facilities Are Mission Critical

Financial Asset,  
Cost, Revenue,  
Budgeting



Operations, Assets, Utilities,  
Intellectual Property



Planning, Lifecycle, Utilization –  
Staff, Students, Visitors

Risk, Vulnerability,  
Life Safety



# Managing Facilities is Complicated

Portfolio Analysis & Mgt.

Public Communications

Lease Management

Space Management

Asset Management

Utilities & Infrastructure Mgt.

Move Management

Capital Planning

Ops & Maintenance

Indirect Cost Recovery

Safety/Security

Emergency Preparedness



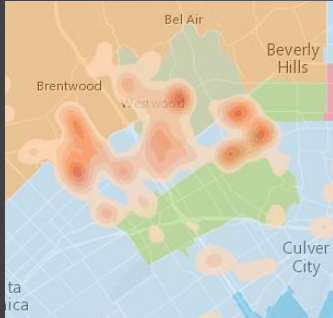
# Facilities Management Business Functions



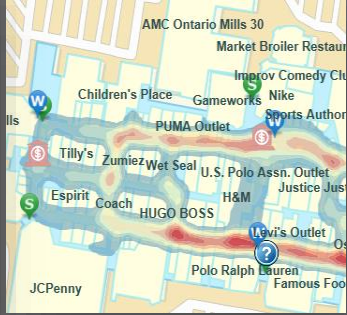




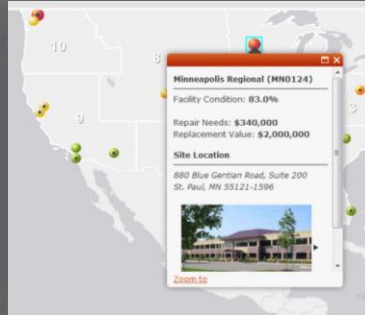
# Portfolio and Planning



Site selection & demographic analysis for property acquisition & disposal



Indoor space & amenity site selection



Real-time portfolio key performance indicator mapping



Building performance mapping & monitoring



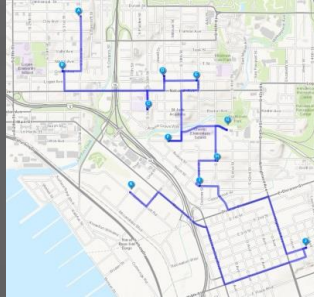
Space allocation & utilization



# Operations and Maintenance



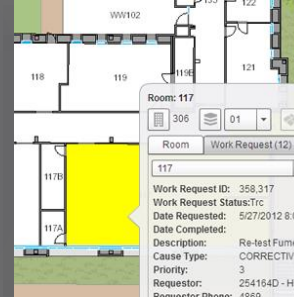
Person, place, amenity  
locator, search/find  
“show me the path”



Optimized work  
scheduling, navigation,  
routing, wayfinding



Real-time indoor  
environment sensors,  
monitoring & alerts



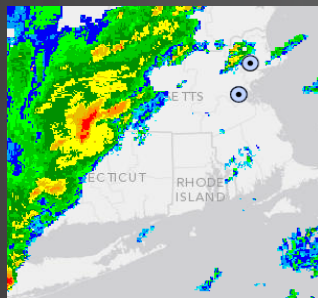
Active, high priority  
work orders



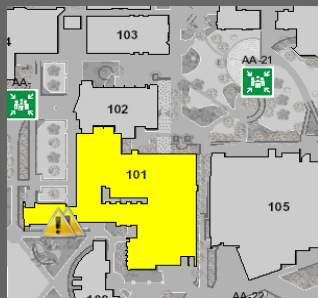
Hot spots of increased  
service requests &  
work orders



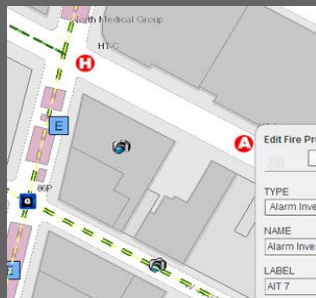
# Public Safety and Security



Natural hazard & continuity of operations



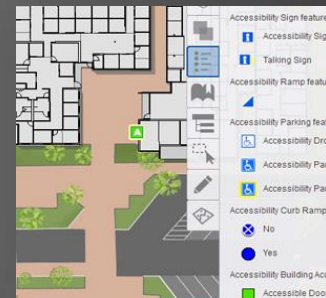
Risk assessment & planning



Event planning, safety, and security



Live camera feeds & view sheds



ADA compliance & emergency evacuation routes



# Why GIS for FM?

## **Location** - *Creates Order Out Of Disorder*

- Correlate diverse data using location as the “universal” index
- Improve data accuracy
- Enhance analysis/understanding
  - Visualizing information
  - Identifying patterns
  - Finding relationships
  - Detecting trends
- Enable efficient/effective workflows
- Report against data from multiple systems of record

## Increase Value of Existing Data / System / Process Investments

- *Allow existing information to support more than one purpose*

## Provide Holistic Views and Reports

- *Better decision making*

## Improve Teamwork / Communications

- *Collaboration, transparency, productivity*

## Mitigate Risk

- *Planning for/awareness of emergency and health situations*

## Save Time

- *Immediate access to necessary information*





# GIS Technology

- Location Based
- Visual
- Quantitative
- Analytical
- Communicative
- Integrative

Low impact on existing systems and organizations

No “rip and replace” of existing systems and workflows

Lightweight and quickly put into place

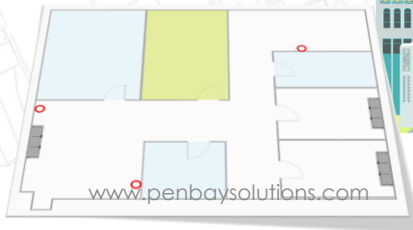
Implement in phases — pilot to focus on solving a specific problem, expand solution as needed



# Scalable – World to the Widget

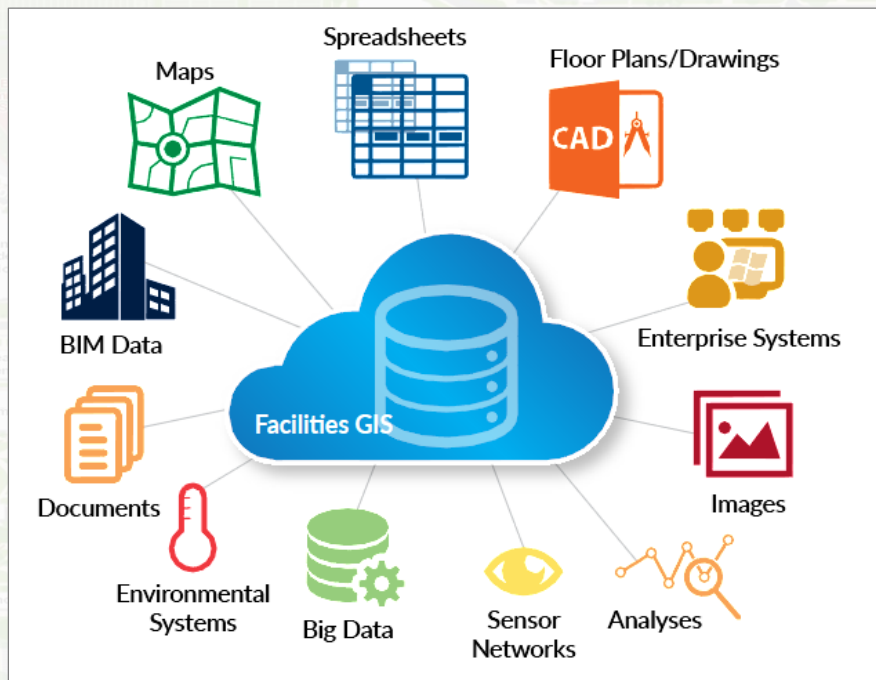
- **Landscape** - Portfolio
- **Site** - Campus, Infrastructure
- **Building** - Geometry, Data
- **Space** - Utilization, People
- **Asset** - Things

Seamless...indoors and out!





# Facilities GIS = Location + Your FM Data + Your Systems of Record





## Facilities GIS Applied

Solution-based  
Modular Apps



InVision **InSite**



InVision **FM**



InVision **Secure**

See.

**InVision Foundation**

Unifies geospatial + non-geospatial data: uses location as organizing principle to create order out of complex information.

Esri ArcGIS Platform



**Your Data & Systems**

spreadsheets  
& docs



DWG, etc.

BIM



maps

infrastructure



sensor  
networks

analyses



images

CCTV



access  
control

environ.  
systems



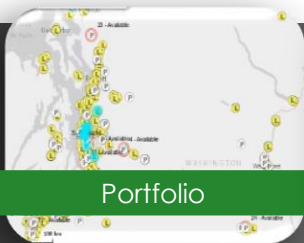
big data

enterprise  
systems





# Facilities Management Using Location



Portfolio



Assets



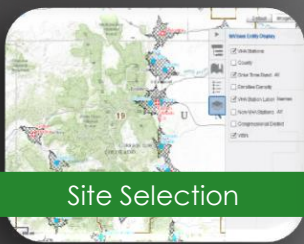
Space



Capital Planning



Emergency Planning



Site Selection



Work Orders



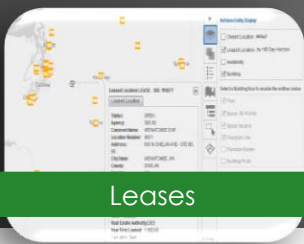
ADA Compliance



Grounds



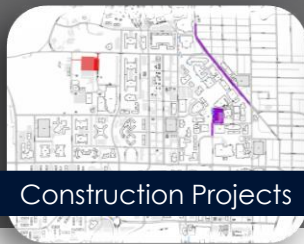
Emergency Response



Leases



Utilities



Construction Projects



Scheduling / Events



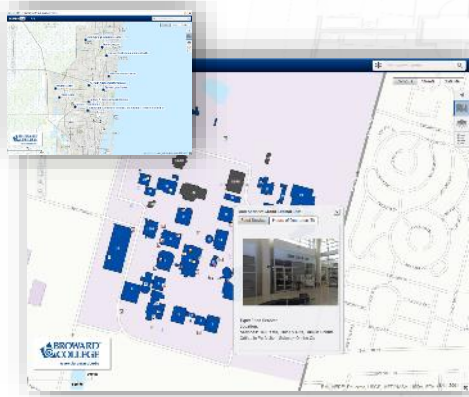
Situational Awareness



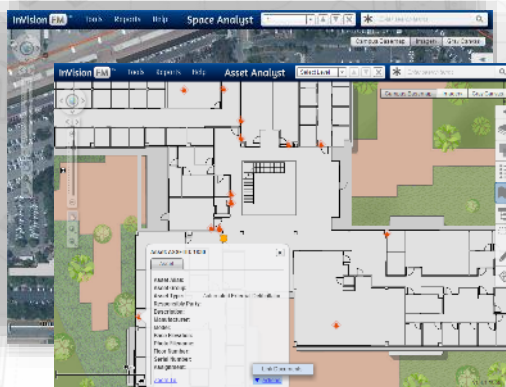


# Roadmap

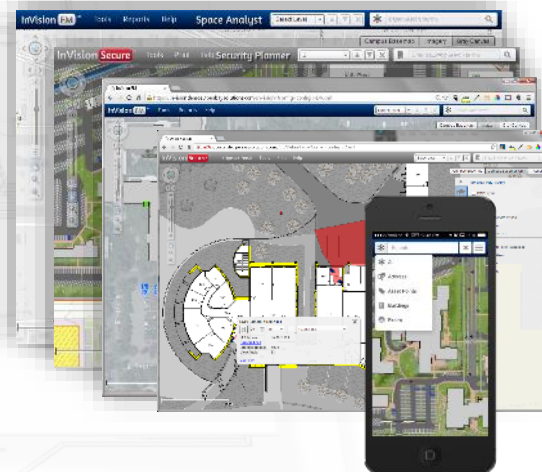
- Crawl



- Walk



- Run





Thank You!

## PenBay Website

- [www.penbaysolutions.com](http://www.penbaysolutions.com)

## White Papers

- *"Facilities are Mission Critical for Federal Real Property"*
- *"Facilities are Mission Critical for Higher Education"*
- *"Facilities are Mission Critical for K-12"*
- *"Facility Management is All About Location, Location, Location"*
  - Download at <http://penbaysolutions.com/info>

## Contact

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