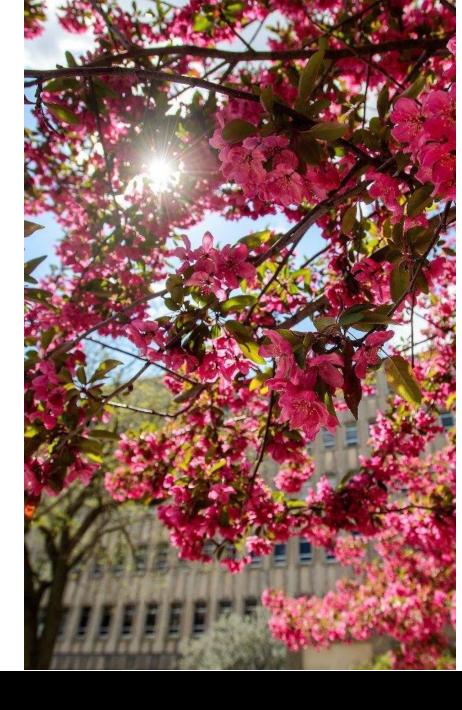
## **WELCOME**

Monthly Building Coordinator Meeting
Via ZOOM

April 16, 2025



#### **Agenda**

#### **Asset Optimization Services (AOS):**

Brad Dameron – Facilities Management Interim Associate Director, AOS

#### Facilities Information Services (FIS):

Kirk Banks - Facilities Management Associate Director, FIS



# Pallet Pickup Program

- √ Pallets should not be landfilled.
- √ Keep out of dumpsters
- √Keep out of recycle bins
- ✓ Departments to place pallets in an organized fashion
- √Call the vendor directly Riverside Pallets Justin and Rachel Aubrecht Owners
- √Services locations almost daily
- √ Mobile: 319-330-2929 (Justin)
- √Other contact number: 319-653-4343 (Rachel)
- √ Email:justinaubrecht1@gmail.com

Questions/concerns, contact UI Purchasing/Joshua Hannan @ 384-3342 or joshua-hannan@uiowa.edu





# **Building Landscape Services Biannual Survey 2025**

#### It's time for the biannual Facilities Management Building & Landscape Services (BLS) survey!

We're gathering feedback on BLS performance in GEF and Oakdale fund campus buildings (excluding Housing & Dining, Athletics, and UIHC-managed facilities).

- -April 28 May 9 (link sent via email)
- -10-15 minutes to complete
- -Your input helps us improve customer service—thank you!









# **Asset Optimization Services**(AOS) Overview

**Building Coordinator Meeting, 4/16/25** 

### **AOS Team Members**

**Brad Dameron**:

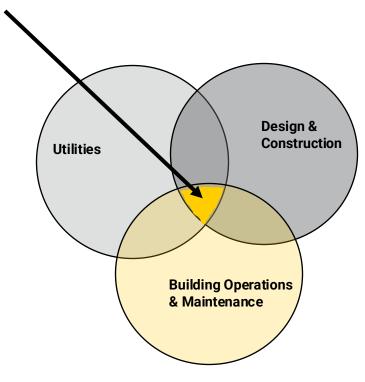
**AOS** Leader

**Brian Dameron** 

Analytic Response Group

**Scott Sellner** 

Controls / ARG / AOS



Nikki Underwood

Mechanical Engineer

対 Godfrey Walker 🗡

**Electrical Engineer** 

Jake Humphreys:

Associate Director D&C

Tom Moore:

Systems Reliability and Energy Manager



## **AOS Scope – The 4 Primary Services**

- 1. Total Cost of Ownership (TCO) Authority AOS will advocate for TCO decision making
- Develop standards to consistently define, calculate, and track TCO
- b. Raise awareness of TCO decisions and educate stakeholders
- c. Ensure TCO is accounted for in FM project workflows
- d. Design Reviews and Field Support of Capital projects
- 2. The University of Iowa Design Standards & Procedures Ownership of energy / reliability related building system design standard content for GEF facilities
- a. Develop a process and team to systematically review and update the current University of Iowa Design Standards and Procedures
  - a. Now working with Stephanie Hoffmeyer on 2026 edits
  - b. Assessments of new technology and change opportunities
    - a. Variable Refrigerant Flow Systems (VRF) is being looked at now



## **AOS Scope – The 4 Primary Services cont.**

- 3. Utilization of "Energy Fund" Assist customers across campus in both identifying and prioritizing project investment opportunities to optimize TCO principles.
- a. Re-occurring \$500,000 fund
- b. All University buildings can submit projects
- c. Next round of funding coming soon
- 4. Building Performance Optimization Assist customers with building performance assessments and awareness
- a. Fault Detection and Diagnostics is key tool for finding opportunities
- b. Building usage review with Utilities
- c. Top 3-5 interruptions
- d. Building Schedules are being reviewed
- e. Develop a retro-commissioning / Blitz plan to evaluate current state of buildings and identify new priorities



# TCO - From design to disposal

#### **TCO** = $\sum_{C_a} + \sum_{C_b} + \sum_{C_c} + \sum_{C_d} + \sum_{C_e}$

#### Where:

Ca = Initial Asset Costs / First Cost (one Time)

C<sub>b</sub> = Cost of **Operations and Maintenance** (Annual Recurring)

C<sub>c</sub> = Cost of **Utilities** (Annual Recurring)

Cd = Cost of Renewal (Periodic Recurring)

Ce = Cost at End of Useful / Functional Life (One Time)

# **Energy Matrix update**

Energy Matrix - Approved Projects								
Financial Tracking								
No.	Scoring		Complete?	Ruilding #	Building Ahry	Building Name	Project Desc.	Estimated Cost
1	1	7/2/2024	X	31	GH	General Hopspital	UlHC-General Hospital steam pump	\$16,307.00
2	1	7/2/2024	X	118	CDD			\$48,408.00
3	1	7/2/2024	Х	431	PFP	Pomerantz Family Pavilion	UIHC-Insulation Mechanical plumbing ( Steam Pipping, Condensate Tank and Heating	\$20,375.00
4	1	7/2/2024		68	CRWC	·	GEF-Upgrade Natatorium Metal Halide lights to LED	\$350,000.00
5	1	7/2/2024	Х	457	HTRC	Hawkeye Tennis and Recreation Complex		\$5,000.00
6	1	7/2/2024		457	HTRC	Hawkeye Tennis and Recreation Complex		\$223,000.00
7	1	7/2/2024	Х	18	BB	Biology Building	GEF-Remove condensing unit for room 305 walk-in cooler from process chilled water	\$20,000.00
8	1	7/2/2024	Х	431	PFP	Pomerantz Family Pavilion	UIHC-PFP lighting system replacement	\$63,600.00
9	1	7/2/2024	Х	31	GH	General Hopspital	UIHC-feeder replacement	\$54,325.00
10	1	7/2/2024		31	GH	General Hopspital	UIHC-AHU 32	\$100,000.00
12	2	12/31/2024	Х	20	STH	Stuit Hall	GEF-Convert Lights in building to LED	\$15,000.00
13	2	12/31/2024		106	СРВ	College of Pharmacy Building	GEF-Pendant light replacement	\$85,000.00
14	2	12/31/2024		431	PFP	Pomerantz Family Pavilion	UIHC-Lighting upgrade	\$65,000.00
15	2	12/31/2024		391	М	Mayflower	Controls upgrade	\$35,000.00
16	2	1/14/2025		374	CHA	Carver Hawkeye Arena	Install new LED fixtures for Practice Gym	\$21,600.00
11	1	7/2/2024	Х	5	CBRB	Carver Biomedical Research Building	GEF-CBRB Insulation Repair	\$50,000.00
							Total All Approved & Completed Energy Matrix Projects	\$1,172,615.00
BENEFITING CUSTOMER:								
GEF								
UIHC								
UIHC - HOSPITAL SCHOOL								
HSG & DINING								
ATHLETICS								



## **Building Optimization – Blitz update**

- Dental Science Building Blitz
  - -Completed more than 40 CM's
  - –Identified energy and reliability opportunities with AHU 1S and 2S
  - Project is complete -Thank you to everyone involved!
- We will be asking for help identifying the next Blitz soon



### **Building Optimization – The Blitz Process**

How can Building Coordinators support/partner with this effort?

- What are your building mechanical system pain points?
- Assemble a multidisciplinary team
- Identify opportunities
- Return mechanical systems to base condition or better
- Make recommendations for capital improvements



#### **Building Optimization – Fault Detection and Diagnostics (FDD)**

- Plan for implementing and using FDD at HSAB
  - POs are issued and commissioning agent is on board
- FDD AiM work order integration Upgraded
  - FDD tasks are now closed out through AiM
- -FDD work orders in the last 12 months
  - 369 Completed Tasks
  - 331,230 USD energy savings
  - 1,068,089 kWh electric savings
  - 280,412 TON-hrs cooling savings
  - 5,215,527 kBTU heating savings



### **Building Optimization – FDD and Controls**

- AHU schedule optimization AOS and Controls are working together
  - College of Nursing building: Saved approximately 41.5 hours of runtime a week which is approximately 2158 hours a year or <u>90</u> <u>days</u>.
  - —Schaeffer Hall building: Saved approximately 28.5 hours of runtime a week which is approximately 1482 hours a year or <u>61</u> days.
  - -Lindquist North: Saved approximately 26 hours of runtime a week which is approximately 1352 hours a year or <u>56 days</u>.



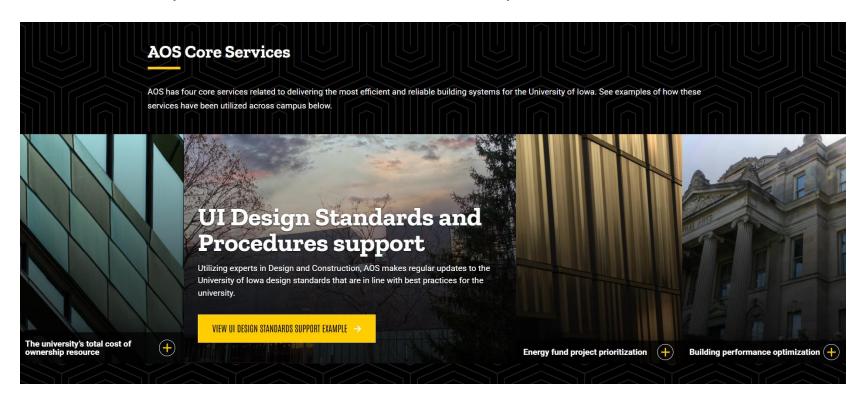
#### **Building Optimization – Retro Commissioning**

- We are investigating teaming up with Mid American Energy to take advantage of their retro commissioning program.
  - Willdan Group (Consulting Engineering firm) looks over building mechanical systems and makes recommendations for improved efficiency
  - Mid American offers financial incentives to offset the cost of implementing these changes.



## Check out our new website!

https://facilities.uiowa.edu/asset-optimization-services





## Collaborative "Wins"

- State Hygienic Laboratories AHU 2-4 Running significantly better- Shout out to Controls (in particular Jim Thomae) 55.6% reduction in chilled water (over \$10,000 in January)
- Collaborated with Engie on high quality water system and saved \$85,000 filter replacement
- AOS and UI Utilities reviewing utility usage on all buildings
- AOS, Controls, Classroom Scheduling, and CLAS working together on building air handler schedules



# **Questions?**





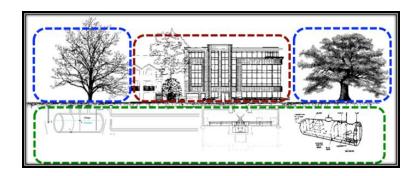
Facilities Information Services (FIS)

# SIMS and Campus Mapping Institutional Support

**Data Stewardship – Source of Truth** 

April 16, 2025

### **FIS - Single Source of Truth**



#### **Facilities Information Services (FIS)**

is responsible for the data stewardship of all campus space, infrastructure, real property and land development for over 22 million gross-square-feet of space across 2,516 acres.



## FIS – Institutional Support

FIS provides administration, departments, and consultants floor plans, maps, and associated data necessary to make informed decisions that support the university's mission and strategic goals.

#### Application Methodology:

- What does the campus own/lease?
- Where is it located?
- Who is utilizing it and How?
- What is it worth?
- What is the maintenance backlog?
- What is its condition?
- What is the remaining service life?
- What do you fix/replace first and When?



#### **FM Services Guide**

https://facilities.uiowa.edu/fm-services-guide



More detailed information about FIS and its role on campus can be found in the Facilities Management Services Guide under Facilities Information Systems (and Campus Planning and Development).



Data Management Land and Utility Surveying

Mapping and Site Information

- → Space Information Management System (SIMS) provides the central master record of campus owned and leased real property including the UI Health Care, Parking and Transportation, Athletics, and University Housing.
- → Land Survey and Civil Eng. Services provides services for the collection, field verification, and CAD mapping of campus utilities, site assets, land improvements, topographic features and civil infrastructure spatial data and attributes.
- → Geographic Information Systems (GIS) provides mapping and data services which include campus base mapping, utilities mapping, property mapping, master and capital plan mapping, and other campus maps.



#### **FIS Team**



Jay Geisen GIS Enterprise Systems Architect



Doug Moore Land Survey and Civil Eng. Services Coordinator



Mais Albaghdadi Space Information Specialist



Michael Maddison GIS Technician



Quinn McNutt Space Information Specialist



#### **Space Information Management System (SIMS)**

- → FIS maintains the campus floor plans and room inventory, supporting the UI and UI Health Care space surveys by updating space assignments and room use information.
- → FIS performs new building and post renovation site surveys to verify the accuracy of floor plans and room data, which is embedded on the floor plans
- → Architectural and Space Floor plans are made available to authorized users via the cloudbased UI Active Visual System operated by the Advanced Technologies Group (ATG).



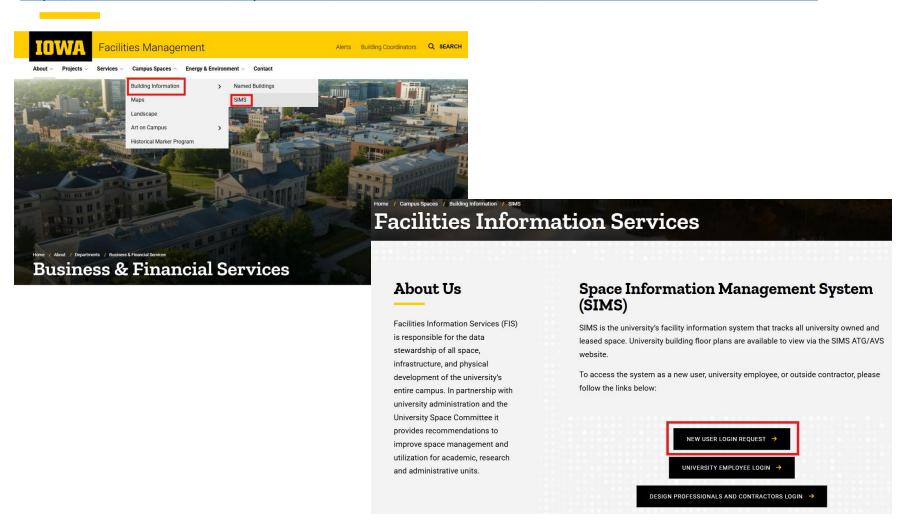




#### Request Access to ATG

https://facilities.uiowa.edu/departments/business-financial-services

https://facilities.uiowa.edu/departments/business-financial-services/facilities-information-services#SIMS



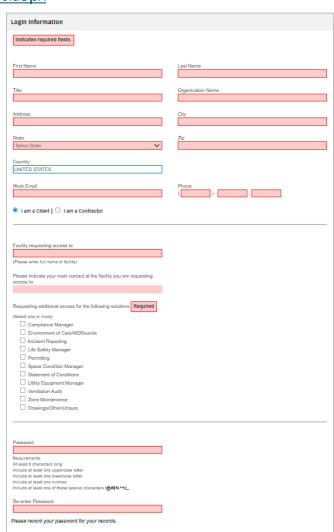


#### Request Access to ATG

**Active Visual System (AVS) Registration** 

https://www.atginc.com/(S(kmoxo1z4qzzazuvpzu152ncy))/LoginRequest.aspx

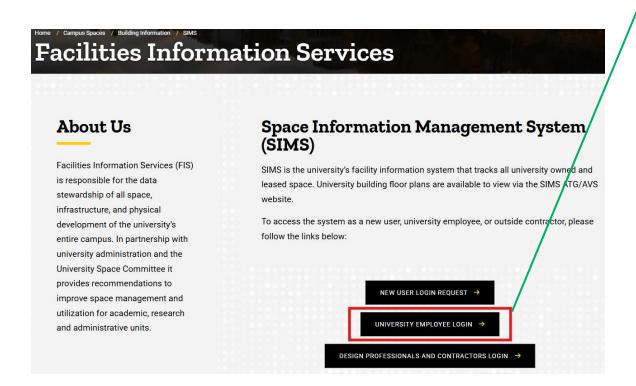
- √ Fill out all required fields and make sure to enter your "Name@uiowa.edu" email, NOT your HawkID@uiowa.edu.
- ✓ For Organization Name use your Department Name.
- ✓ For Facility Requesting Access To use University or UI Health Care.
- √ For Main Contact use your Supervisor
- ✓ You are requesting access to Drawings/Other/Unsure.
- ✓ Although the Registration form has you enter a Password it is not the one you will use to log onto the site. You will use your HawkID and Password to access ATG.

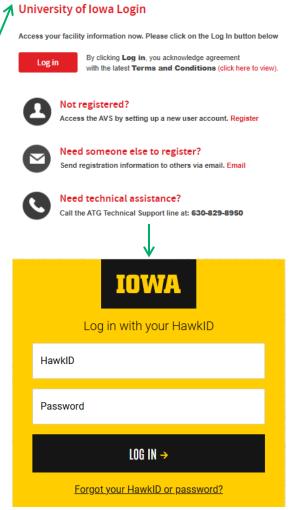




#### **ATG Login**

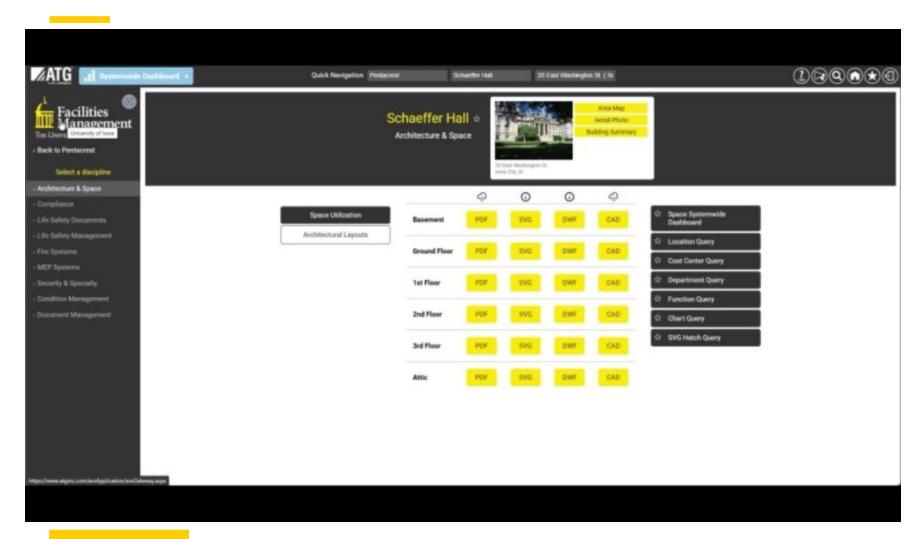
https://facilities.uiowa.edu/departments/business-financial-services/facilities-information-services#SIMShttps://www.atginc.com/(S(uwqz2ldochcfmtiu2t55rdxh))/LoginIowa.aspx







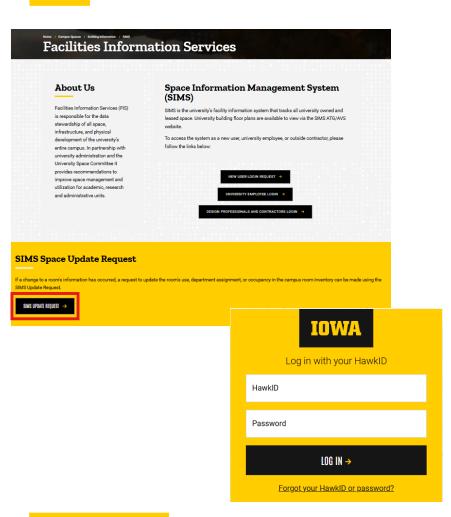
### **Navigating ATG**

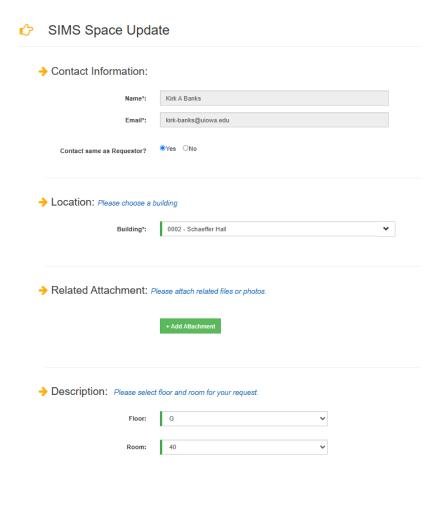




#### SIMS Space Update Request

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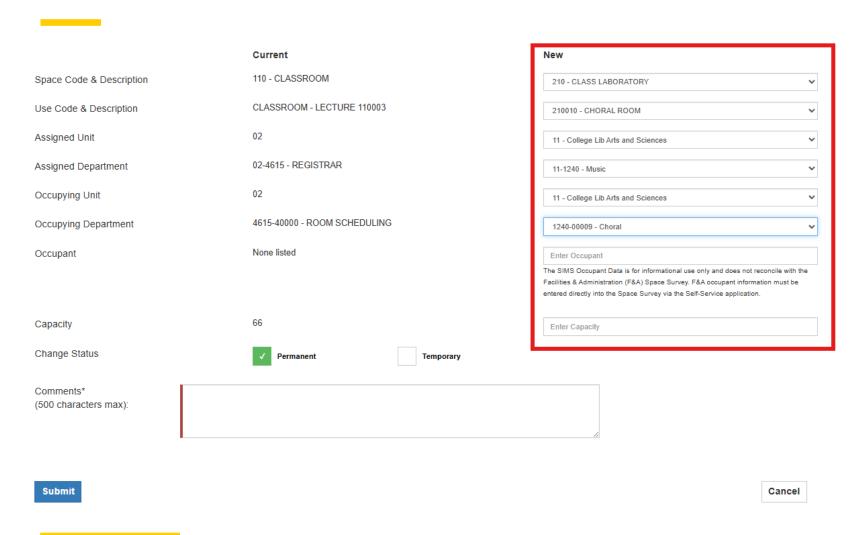






### SIMS Space Update Request

https://facilities.uiowa.edu/departments/business-financial-services/facilities-information-services#SIMS





#### FIS Tools – 360 Photos

**360 photos** are now taken as part of the site survey process. The implementation of this process has greatly enhanced the FIS' ability to accurately update and maintain floor plans, utility vaults and tunnels.

An institutional benefit resulting for this work has been providing access to these photos via the <u>FIS 360 Photos SharePoint</u> site to enhance campus operations.





#### FIS Tools – Leica 3D Laser Scanner

FIS utilizes Leica hardware and software to efficiently capture existing conditions for the campus physical environment, both interior and exterior. The captured spatial data is then integrated with Autodesk technology used by FIS for architectural and engineering floor plans and models.

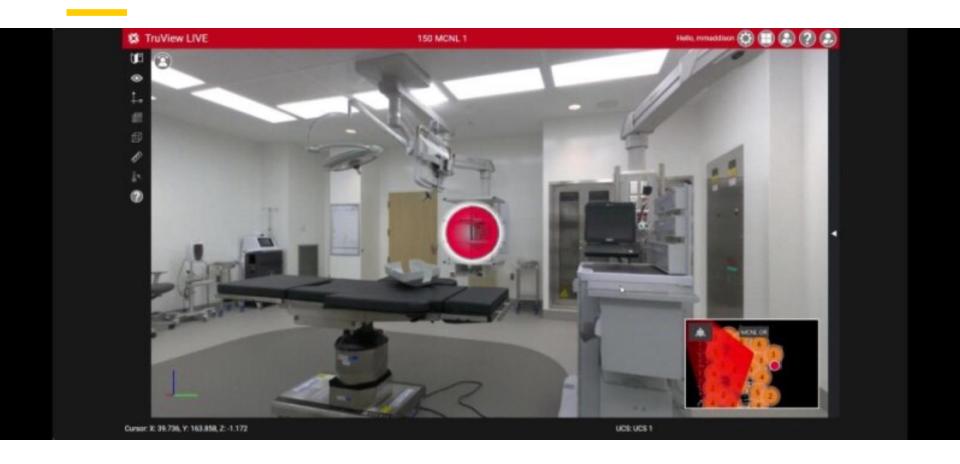
Verification and producing floor plans has significantly improved with the addition of the scanner.



**Trowbridge Hall** 



# FIS Tools – Leica Cyclone Software



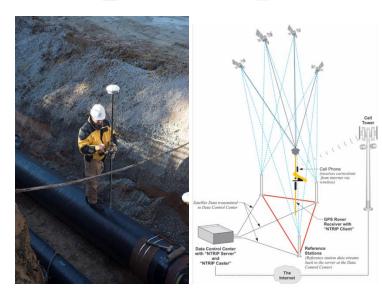


Campus Mapping – Land Survey and Civil Eng. Services - Collection (GPS)

→ Land Survey and Civil Eng. Services utilizes state-of-the-art Global Positioning System (GPS) technology to collect and maintain highly accurate and useful infrastructure and property survey data.

- → GPS technology provides the means for infrastructure and land use to be mapped, planned and designed, built, and operated.
- → CAD and GIS systems rely upon survey data obtained using GPS to provide professional grade location and attribute data to campus utilities operators and design professionals.



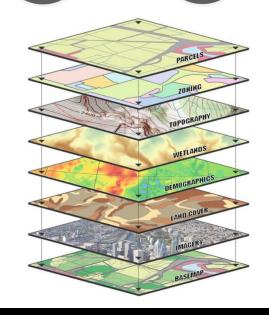




Campus Mapping - Geographic Information System (GIS)

- → GIS connects data to a map, integrating location data (where things are) with all types of descriptive information (what things are like there). This provides a foundation for FIS' mapping.
- → The GIS system includes an impressive set of assets such as aerial photos, SIMS data, parcels, proposed master planning scenarios, easements, contour (elevation) lines, FEMA floodplain extents, signs, exterior furniture and structures, land cover, parking, roads, sidewalks, trees, utilities and countless others.
- → The GIS team uses this data to create user-friendly webbased interactive campus maps as well as printable maps.
- → The institutional benefits of GIS mapping include improved communication and operational efficiency as well as better management and decision making.

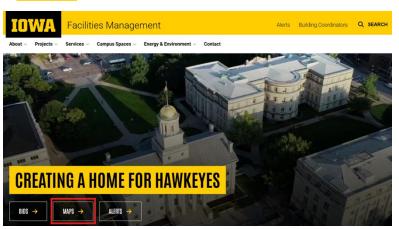


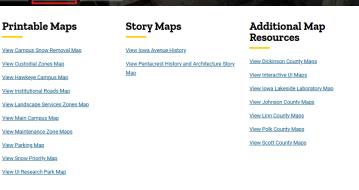




#### Interactive web-based maps and printable maps

#### https://facilities.uiowa.edu/





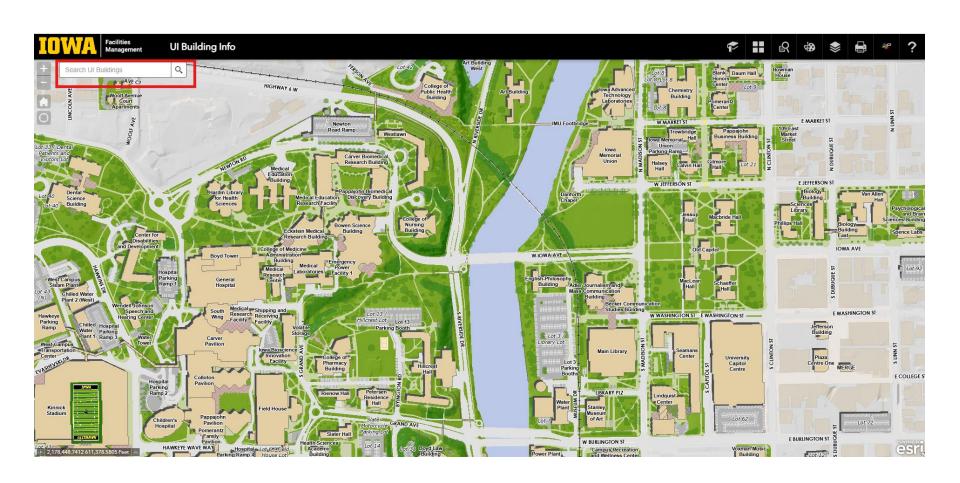






## **2D Campus Map**

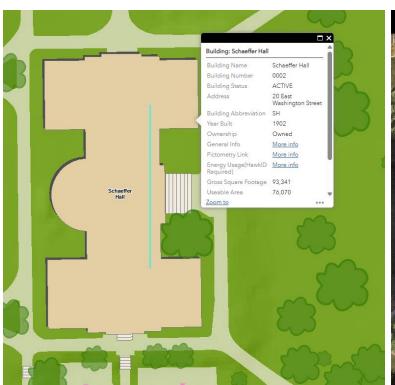
https://maps.facilities.uiowa.edu/buildings/

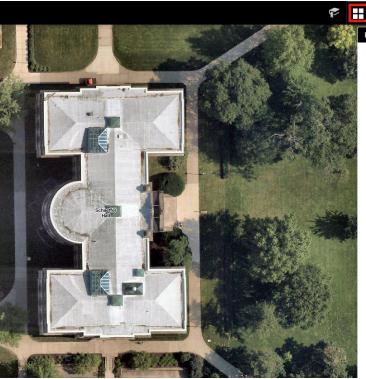




## 2D Campus Map – Building Info. and Aerials

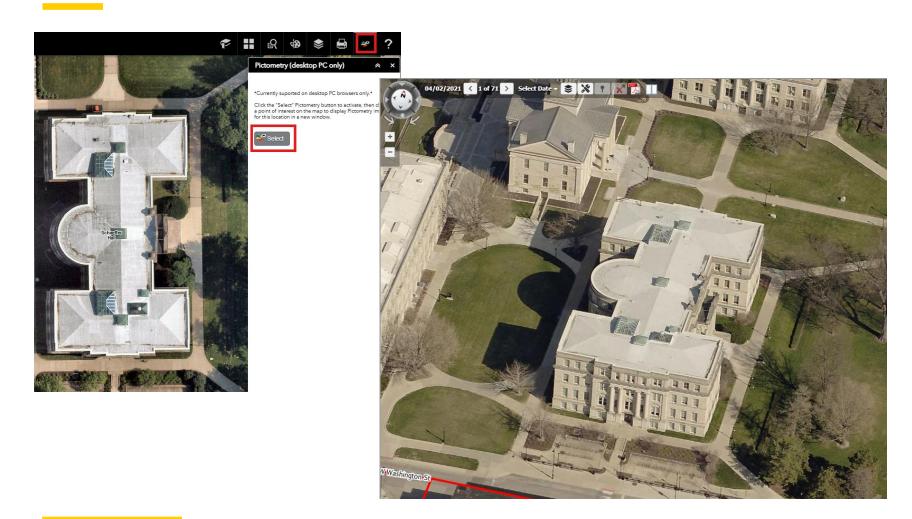
https://maps.facilities.uiowa.edu/buildings/







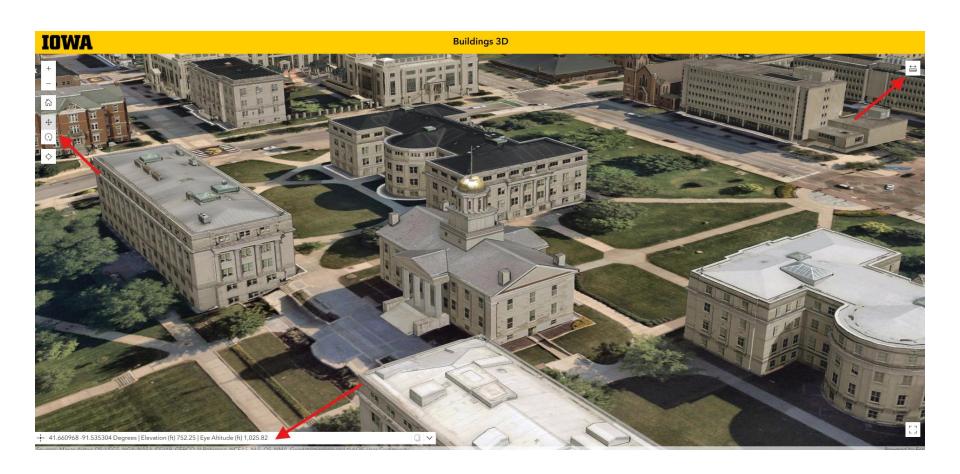
#### 2D Map Pictometry – Birdseye Image Desktop PC Only





## **3D Campus Map**

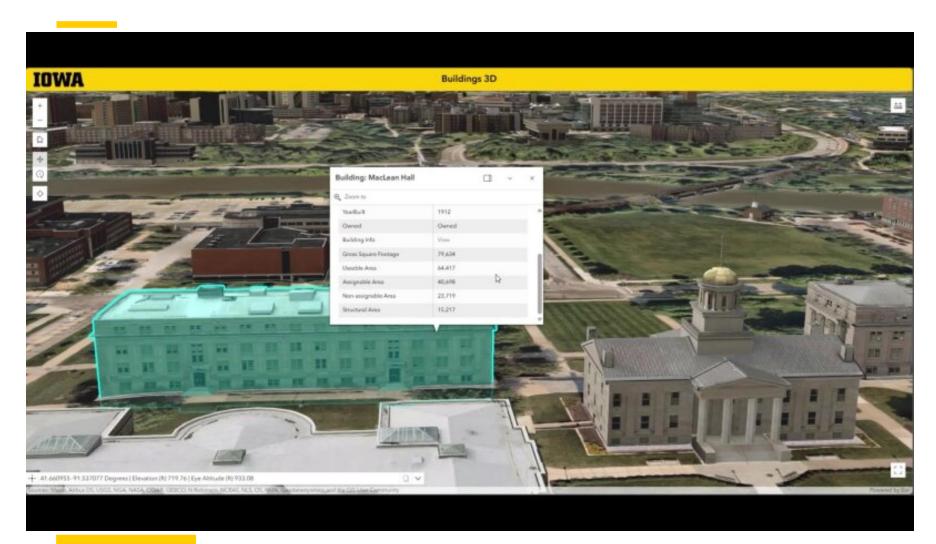
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### **3D Campus Map**

https://experience.arcgis.com/experience/79af88ffa5f842b59e4cb7bdefca8380





#### **Institutional Benefits**

- → Integrate space data with other management and budget applications. (DWPROD/BI/AiM/TMA/PI & Energy Cap)
- → Extend the capital-planning horizon for long-term funding projections. (Master Planning/Sightlines)
- → Improve the campus planning and project delivery process. (Capital Planning / Project Programing and Design)
- → Promotes a year-round planning and budgeting process in accordance with the university mission and overall strategic and operational goals. (CEA/Unit Plans)
- → Reduce the "crisis management" time associated with service and/or asset disruption. (Floods/COVID)
- → Reduces lost time associated with locating assets and spaces.





FIS: SIMS and Campus Mapping Institutional Support

# Questions?



# **Building Coordinator**

Next meeting: May 21, 2025, via zoom 11 AM to 12 PM

#### **Proposed Agenda:**

- Building Operations and Maintenance
- Test of Chilled Water System
- FM@YourService

# Questions? THANK YOU!

Feedback welcome by emailing stephanie-rourke@uiowa.edu