

Facilities Information Services (FIS)

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# **SIMS and Campus Mapping Institutional Support**

**UI Building Coordinators Network**

February 21, 2024

# Kirk Banks

Associate Director, Facilities Information Services

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## Education:

- Bachelor of Science Mechanical Engineering, University of Iowa, 1986
- Master of Business Administration, University of Iowa, 1990

## Work Experience:

### **University of Virginia**

- Capital Outlay Project Engineer, FM Facilities Planning and Construction
- Systems and Special Projects Manager, UVa Health System Facilities Services

### **University of Alabama at Birmingham**

- Engineering Manager, Facilities Division

### **University of Iowa**

- Management Engineer, UIHC Division of Facilities Services
- Space Information Manager, FM Space Planning and Utilization

# FIS Team

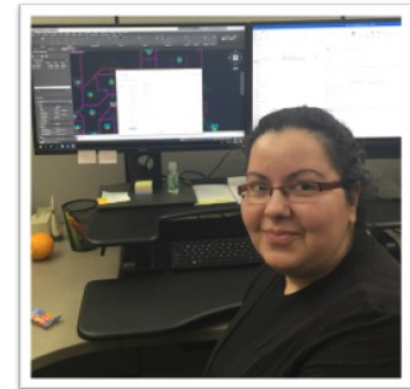
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Jay Geisen  
GIS Enterprise Systems Architect



Doug Moore  
Land Survey and Civil Eng.  
Services Coordinator



Mais Albaghdadi  
Space Information Specialist



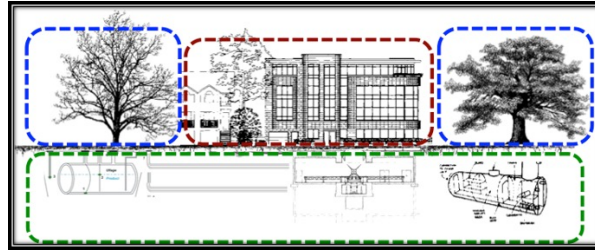
Michael Maddison  
GIS Technician



Quinn McNutt  
Space Information Specialist

# About FIS

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## Facilities Information Services (FIS)

is responsible for the stewardship of all campus space, infrastructure, real property and land development data for Iowa's 21 million gross-square-feet of space across 2,500 acres.

**Single Source of Truth**  
of campus space data.

# Why is FIS Important

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FIS systems provides a framework for collecting the data and information required to make decisions about the strategic plans of the fixed assets of the campus.

## 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?

# What We Do

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▸ The **Space Information Management System (SIMS)** provides the central master record of campus owned and leased real property including the UI Hospitals and Clinics, 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.

# Space Information Management System (SIMS)

→ Architectural and Space Floor plans are made available to authorized users via the cloud-based UI Active Visual System operated by the Advanced Technologies Group (ATG).



· SIMS staff performs new building and post renovation site surveys to verify the accuracy of architectural layouts, room use, department occupancy, and other associated data which is embedded on the floor plans.

· SIMS staff supports the university and UI Hospitals and Clinics space surveys by updating room assignments and occupying department and space use information.



# Request Access to ATG

**IOWA**  
Facilities Management

ABOUT US ▾ PROJECTS ▾ SERVICES ▾ **CAMPUS SPACES ▾**

Home » Campus Spaces

## Facilities Information Services

**ABOUT US**

Facilities Information Services (FIS) is responsible for the data, infrastructure, and physical development for the university's campus across 2,500 acres. This includes, but not limited to, land holdings and infrastructure assets and other real property data. FIS is comprised of the Space Information Management System (SIMS).

### SPACE INFORMATION MANAGEMENT SYSTEM

SIMS is the university's facility information system that tracks all university owned and leased space. University building floor plans are available to view via the SIMS ATG/AVS website.

To access the system as a new user, university employee, or outside contractor, please follow the links below:

- New User Login Request** (Click Here)
- University Employees (Click Here)
- Design Professionals and Contractors (Click Here)

**ATG**  
a JLL company

CLIENT LOGIN | HOME

### Active Visual System® Registration

Please fill out the following form completely and click "Submit" to process your registration. An auto-reply email will be sent to you confirming your submission. A second email providing your username and password will be sent once your registration has been approved.

For immediate assistance, please contact us at 630.829.8950.

#### Login Information

Indicates required fields.

Salutation:

First Name:

Last Name:

Title:

Organization Name:

Address:

City:

State:

Zip:

Country:

Work Email:

Phone: (  ) -  -

Facility requesting access to:

(Please enter full name of facility)

If you are a consultant, please indicate main contact at the facility you're requesting access to:

Requesting additional access for the following solutions **Required**

(Select one or more)

<input type="checkbox"/> Asset Manager	<input type="checkbox"/> Life Safety Manager
<input type="checkbox"/> Statement of Conditions	<input type="checkbox"/> Compliance Manager
<input type="checkbox"/> Permitting	<input type="checkbox"/> Environment of Care
<input type="checkbox"/> Space Move Manager	<input type="checkbox"/> Drawings/Other/Unsure



# Access Floor Plans

**IOWA**  
Facilities Management

Alerts BU

ABOUT US ▾ PROJECTS ▾ SERVICES ▾ **CAMPUS SPACES ▾**

Home » Campus Spaces

## Facilities Information Services

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**ATG**  
a JLL company

### University of Iowa Login

Access your facility information now. Please click on the Log In button below

**Log in** By clicking **Log in**, you acknowledge agreement with the latest **Terms and Conditions** ([click here to view](#)).

**Not registered?**  
Access the AVS by setting up a new user account. [Register](#)

**Need someone else to register?**  
Send registration information to others via email. [Email](#)

**Need technical assistance?**  
Call the ATG Technical Support line at: **630-829-8950**

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**University Employees** [Click Here](#)

**Design Professionals and Contractors** [Click Here](#)

### HawkID Login for www.atginc.com

**THE UNIVERSITY OF IOWA**

HawkID

Password

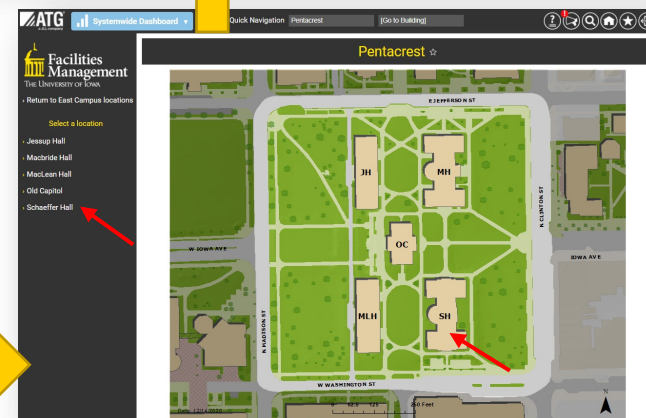
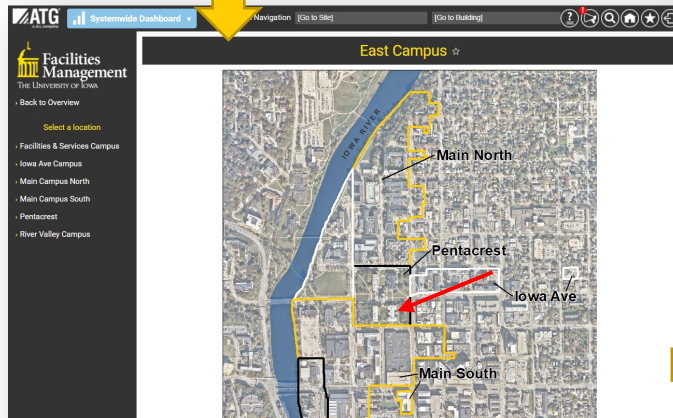
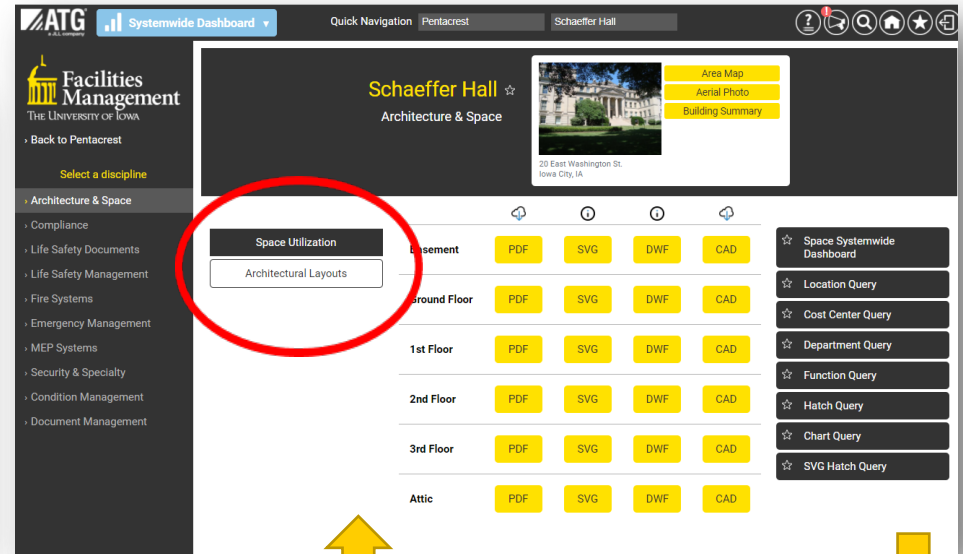
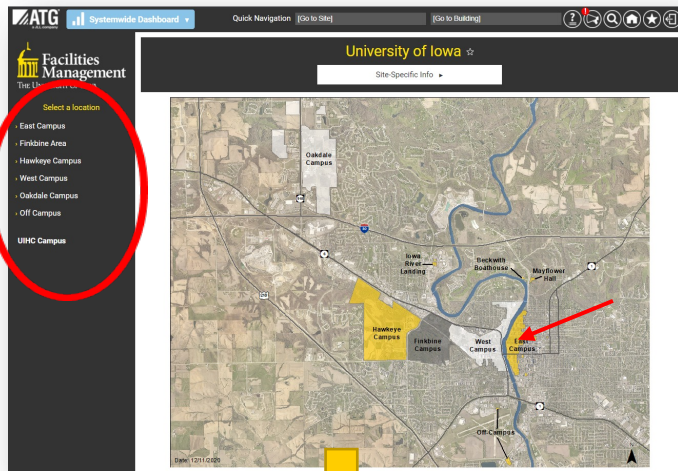
**Log In** [Forgot your HawkID or password?](#)

You will be logged in to this service securely. Information which will allow you to access the site you requested will be transmitted to the site. This information will be encrypted before it is sent. Please see the ITS Help Desk [Shibboleth support pages](#) for additional information.

Please contact the [ITS Help Desk](#) for assistance, questions, or concerns.

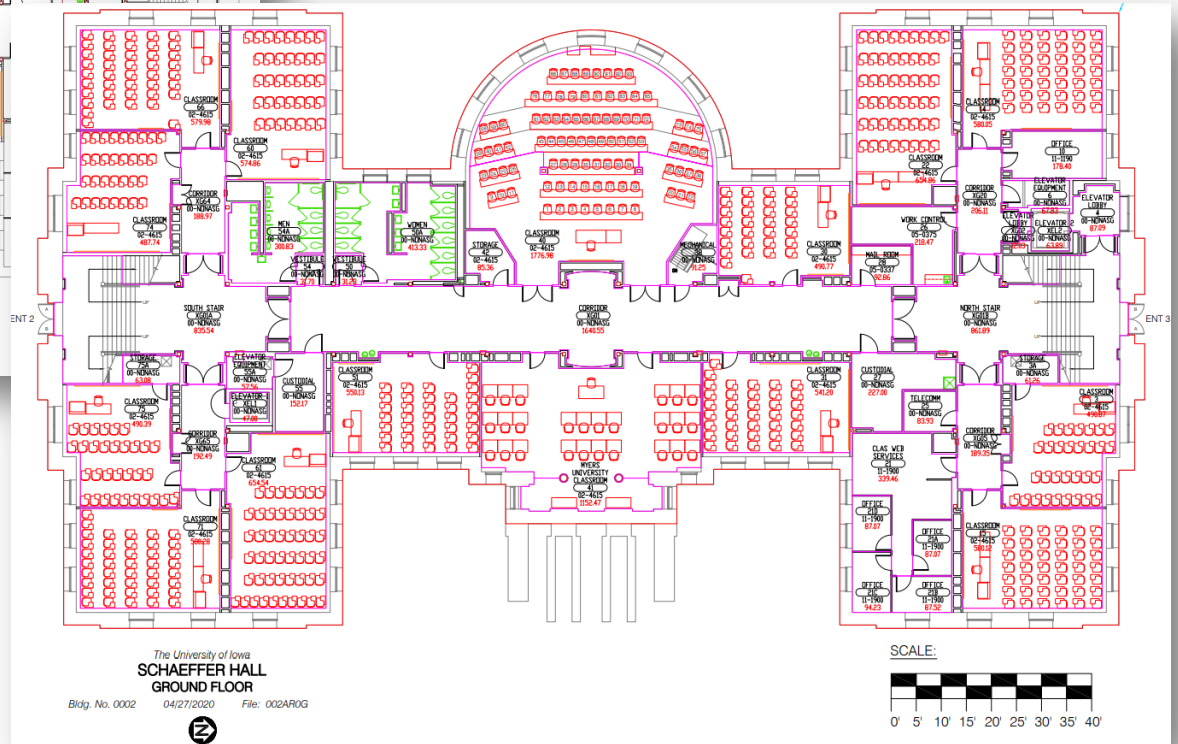
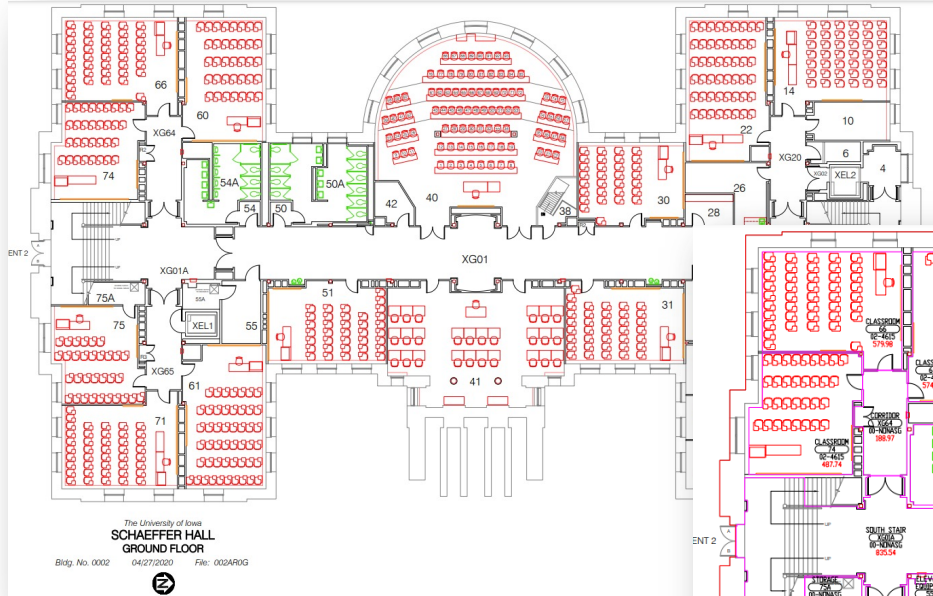


# Navigating to get Floor Plans



# Floor Plans - ATG

## Space Floor Plan



## Architectural Floor Plan

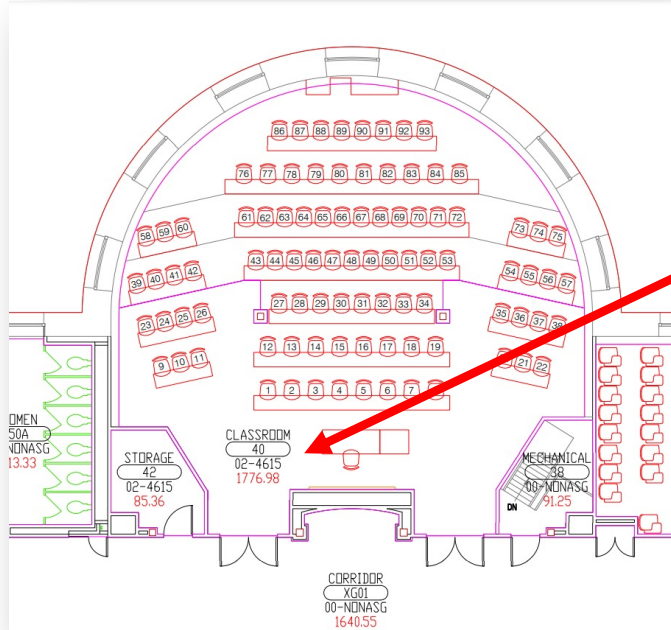


# Floor Plans - ATG



## Room Data

Field	Values
Site	MAIN CAMPUS (EAST)
Building	0002 SH
Floor	G
Room Number	40
Room Name	CLASSROOM
Responsibility Center	4615-40000
Responsibility Center Description	ROOM SCHEDULING
Department	02-4615
Department Description	REGISTRAR
Room Description	ASSIGNABLE
Space Definition	110 - CLASSROOM
Use Code	110003
Use Description	CLASSROOM - LECTURE
Function Code	1.1
Function Description	AA - INSTRUCTION
Division	UNIVERSITY CLASSROOM
Occupancy	96
Date Modified	02/23/2019
Floor Type	VINYL COMPOSITION TILE (VCT)
Custodial Service Level	DAILY
Recent Project	UI PROJECT 92828 - SCHAEFFER HALL REMODELING AND RENEWAL (1998)
Suite/Zone	UNIVERSITY CLASSROOM
Net S.F.	1776.98
DRAWING	002SP0G.dwg



## Space Floor Plan

# SVG Hatch Query

Basement PDF SVG DWF CAD

Ground Floor PDF **SVG** DWF CAD

1st Floor PDF SVG DWF CAD

2nd Floor PDF SVG

3rd Floor PDF SVG

Attic PDF SVG

## Hatched Floor Plan

Pentacrest Schaeffer Hall Space Utilization Ground Floor

Auto Hatch Query Hatch

Gross Area  Net Area

Choose Field Name: Department Description

Filter Specific Values (optional):

APPLY

Color	Department Description	Net Area (S.F.)
●	REGISTRAR	10270.6
●	UI NONASSIGNABLE AREA	5906.08
●	LIBERAL ARTS AND SCIENCE ADMIN	695.35
●	FACILITIES MANAGEMENT SHOPS	218.47
●	HISTORY	178.4
●	CENTRAL MAIL SYSTEM	92.86

The University of Iowa SCALE:

# SIMS Update

The screenshot shows the IOWA Facilities Management website. The navigation menu at the top includes 'ABOUT US', 'PROJECTS', 'SERVICES', and 'CAMPUS SPACES', with 'CAMPUS SPACES' circled in red. Below the menu, the page title is 'Facilities Information Services'. A 'SIMS Update' button is circled in red in the lower section of the page. At the bottom, there are three buttons: 'New User Login Request', 'University Employees', and 'Design Professionals and Contractors', each with a 'Click Here' link.

The screenshot shows the 'SIMS Space Update' form. The contact information is pre-filled with 'Name\*: Kirk A Banks' and 'Email\*: kirk-banks@uiowa.edu'. The 'Contact same as Requestor?' option is selected as 'Yes'. The 'Enter HawkID:' field contains 'Enter HawkID' and a 'Search' button is visible. The 'Location:' dropdown menu is set to '0002 - Schaeffer Hall'. A green '+ Add Attachment' button is located at the bottom of the form.

# SIMS Update

**IOWA** Facilities Management **Space Information**

→ Description: *Please select floor and room for your request.*

Floor:

Room:

	Current	New
Space Code & Description	110 - CLASSROOM	<input type="text"/>
Use Code & Description	CLASSROOM - LECTURE 110003	<input type="text"/>
Assigned Unit	02	<input type="text"/>
Assigned Department	02-4615 - REGISTRAR	
Occupying Unit	02	
Occupying Department	4615-40000 - ROOM SCHEDULING	
Occupant	None listed	<input type="text" value="Enter Occupant"/> <small>The SIMS Occupant Data is for informational use only and does not reconcile with the Facilities &amp; Administration (F&amp;A) Space Survey. F&amp;A occupant information must be entered directly into the Space Survey via the Self-Service application.</small>
Capacity	96	<input type="text" value="Enter Capacity"/>
Change Status	<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary	
Comments* (500 characters max):	<input type="text"/>	





**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 [FIS 360 Photos SharePoint](#) site to enhance campus operations.

Access has been made available limited users within the following Units:

- Classroom Management and Operations
- Learning Spaces Support
- FM Utilities and ENGIE, Building and Landscape Services, Fire and Life Safety, and Design and Construction Services
- UIHC Capital Management
- UIHC Engineering Services
- University Housing and Dining
- F&O Strategic Communications
- Campus Planning and Development
- UI Public Safety
- CLAS IT



# Macbride Hall Auditorium

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Ricoh Theta X – 360 Camera w/ 11K Resolution

# 3D Laser Scanner Reality Capture

FIS now utilizes Leica hardware and software to efficiently capture existing conditions for the campus physical environment and transfer the digital data into architectural and engineering plans and models.

The process in the creation of AutoCAD drawings, Revit 3D Models and BIM has significantly improved with the addition of the Leica hardware and software and its integration with the Autodesk and GIS software used by FIS.



Growing Words CR Lab

# 3D Laser Scanner Reality Capture

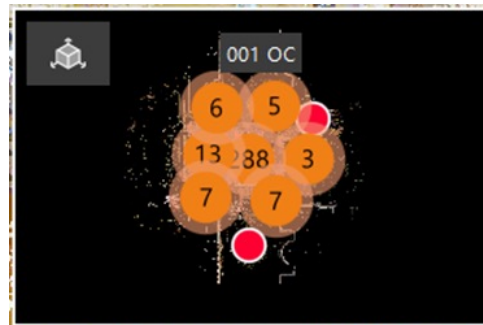
The Leica BLK360 is an advanced precision imaging laser scanner will allow for rapid LiDAR scanning and capture of high-quality photospheres (360 images) of university physical spaces.

The Leica hardware and software integrates this captured spatial data with Autodesk technology used by Facilities Information Services (FIS) for space and asset management and campus planning.

**Speed:** 680Kpoints/second

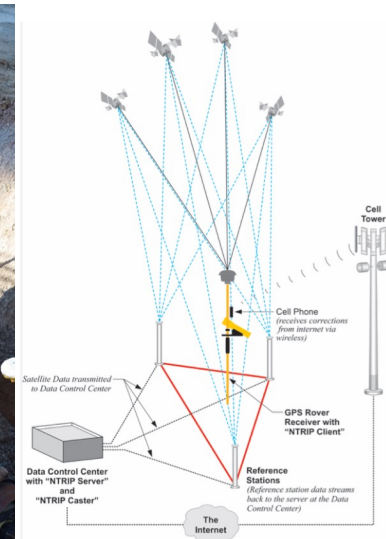
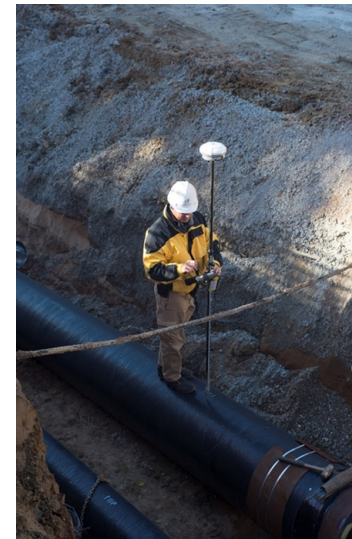
**Range:** 40m

**Accuracy:** 4mm @ 10m



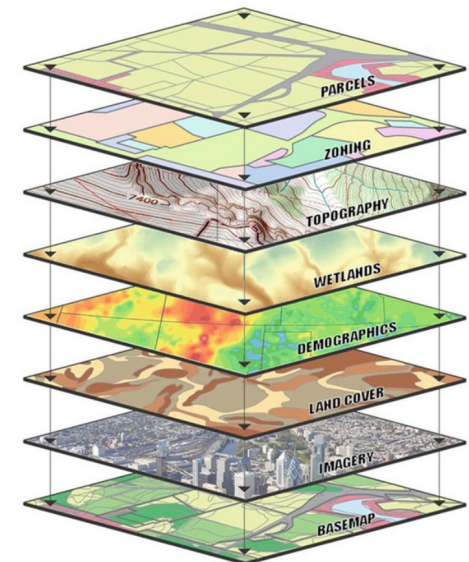
# Campus Mapping – Land Survey and Civil Eng. Services - Collection (GPS)

- Land Survey and Civil Eng. Services utilizes state-of-the-art Global Positioning System (GPS) technology which has transformed its ability to collect and maintain highly accurate and useful infrastructure and property survey data.
- The connection of GPS technology used to support surveying tasks is important to understand. It provides the means for infrastructure and land use to be 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 mapping and analysis that helps the campus understand patterns, relationships, and geographic context.
- 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 web-based interactive campus maps as well as printable maps.
- The institutional benefits of GIS mapping include improved communication and efficiency as well as better management and decision making.



# Campus 2D Map

**IOWA**  
Facilities Management

Alerts BU

ABOUT US ▾ PROJECTS ▾ SERVICES ▾ **CAMPUS SPACES ▾**

Home » Campus Spaces

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**IOWA**  
Facilities Management

ABOUT US ▾ PROJECTS ▾ SERVICES ▾

Home » Campus Spaces

## Maps

UNIVERSITY OF IOWA MAPS

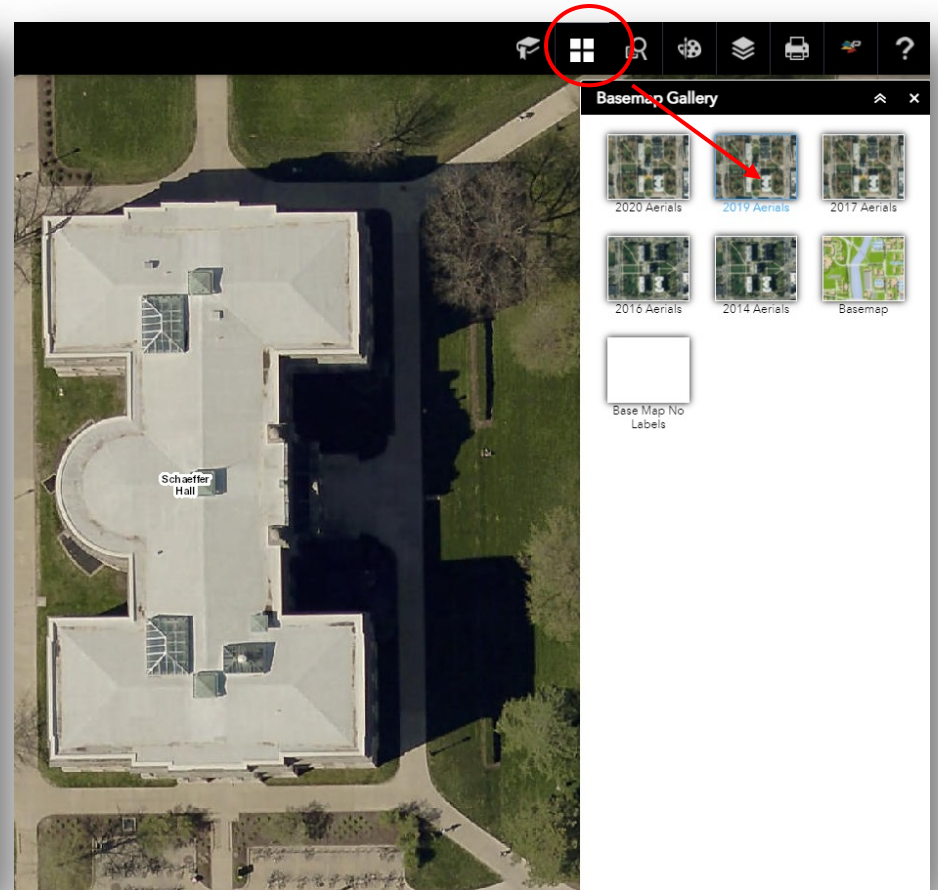
View maps of the University of Iowa campus including interactive web-based maps and printable maps to take on the go with you.

**WEB-BASED MAPS**

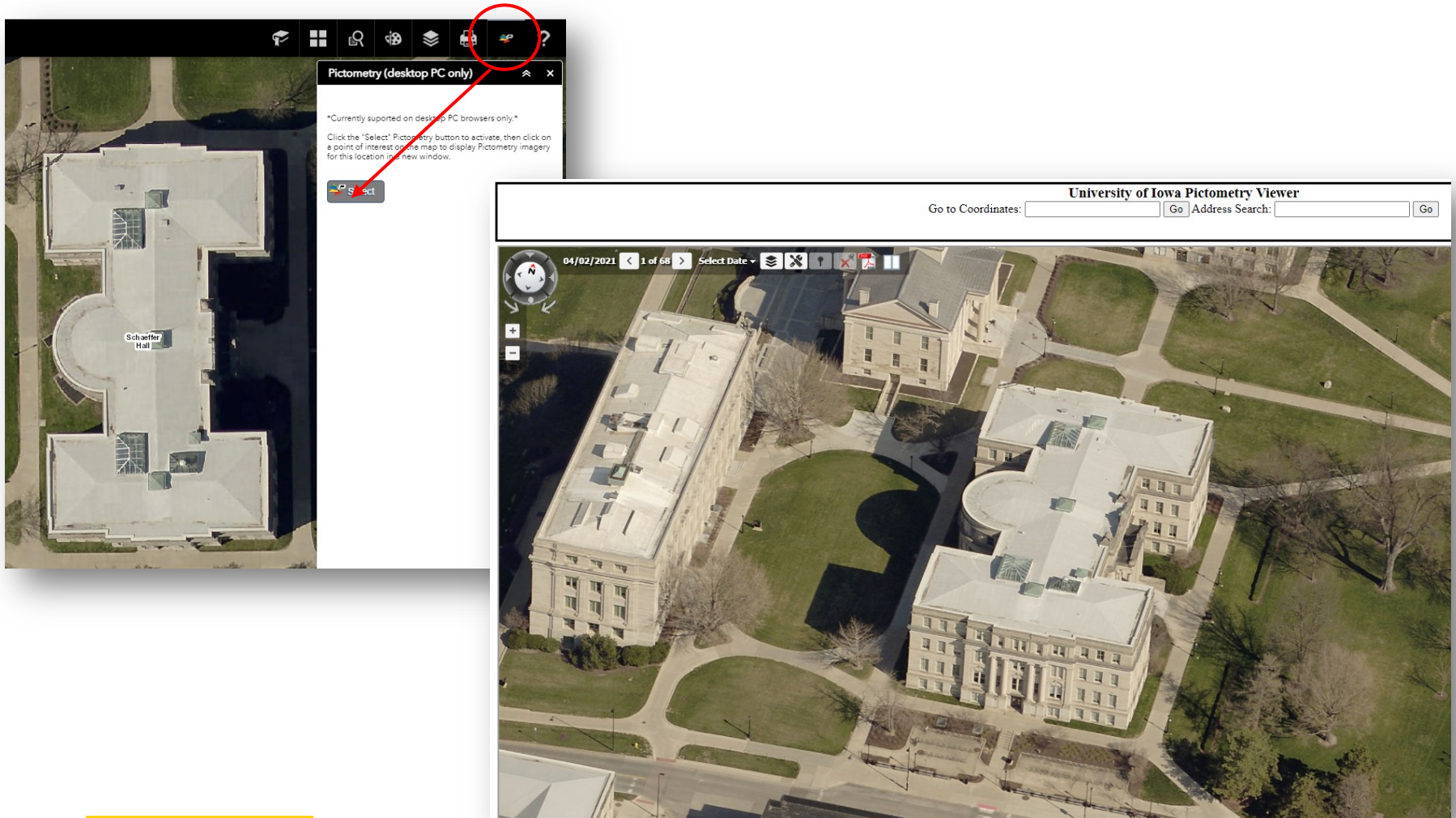
- 2D CAMPUS MAP** (circled in red)
- 3D CAMPUS MAP
- ART ON CAMPUS
- ACCESSIBILITY
- BICYCLE INFRASTRUCTURE
- CONSTRUCTION CLOSURES
- HISTORICAL MARKERS
- TREE INVENTORY



# Building Search and Aerials

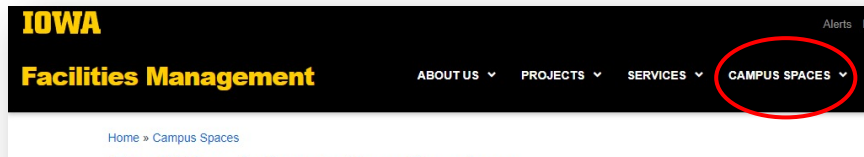


# Pictometry – Birdseye Image

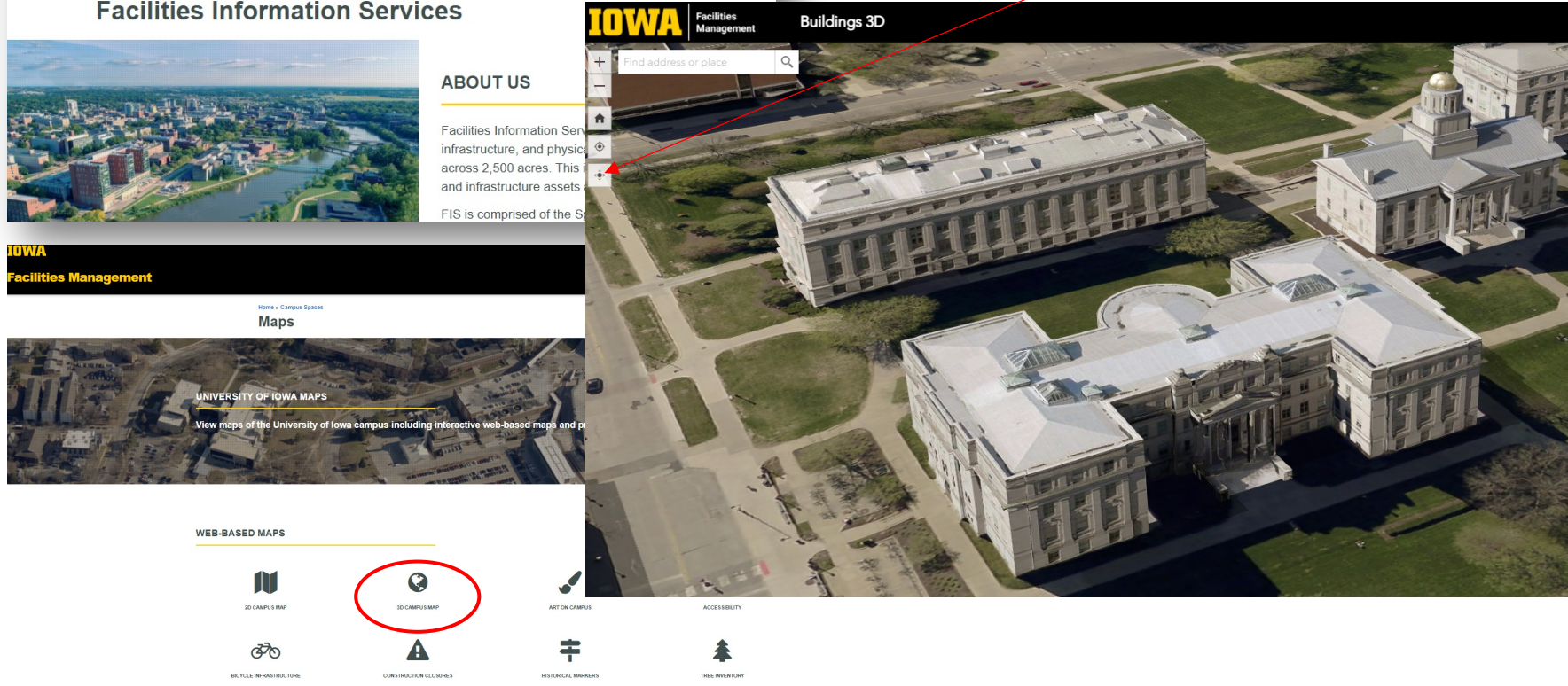




# Campus 3D Map



Navigate Tool



# GIS Web Map Library

<https://gis-web-map-library-uiadmin.hub.arcgis.com/>

**IOWA** GIS Web Map Library




**GIS Web Map Library**  
Search, Visualize, Download, Create

Search

This is the platform for exploring and downloading GIS data, discovering, and engaging others to solve important issues. Let's achieve our goals together!

[360 Photos Sharepoint](#)

[Facilities Management Maps Page](#)



UI Building Info

UI Building Information

Explore

UI Accessibility

Accessibility Map for UI

Explore

Closures

Construction Closures and General Closures

Explore

**IOWA** GIS Web Map Library

Web Maps

Site Features and Landscape	Accessibility and Service	Utilities	Miscellaneous
<a href="#">Trees</a> (Public)	<a href="#">Accessibility</a> (Public)	<a href="#">All Utilities</a> (Private)	<a href="#">Smoking</a> (Public)
<a href="#">Signs and Monuments</a> (Private)	<a href="#">Classrooms Walk Time</a> (Private)	<a href="#">Chilled Water</a> (Private)	<a href="#">Easements</a> (Private)
<a href="#">Dumpsters</a> (Private)	<a href="#">Parking - FIS</a> (Public) <a href="#">Parking Availability</a> (Public)	<a href="#">Air</a> (Private)	<a href="#">Sustainability</a> (Public)
<a href="#">Historical Markers</a> (Public)	<a href="#">All Projects</a> (Private)	<a href="#">Electrical Distribution</a> (Private)	<a href="#">University Parcels</a> (Public)
<a href="#">Native Plants</a> (Public)	<a href="#">Iowa City Closures</a> (Non UI) (Public)	<a href="#">Electrical Lighting</a> (Private)	
<a href="#">Art on Campus</a> (Public)	<a href="#">Single User Restroom</a> (Public)	<a href="#">Gas</a> (Private)	<a href="#">Lactation Rooms</a> (Public)
<a href="#">Campus Spaces and Benches</a> (Public)	<a href="#">Closures</a> (Public)	<a href="#">ITS Fiber</a> (Private)	
<a href="#">MNRA Trails</a> (Public)		<a href="#">Sanitary</a> (Private)	
<a href="#">Memorials</a> (Public)		<a href="#">Steam</a> (Private)	
		<a href="#">Storm</a> (Private)	
		<a href="#">Tunnels And Vaults</a> (Private)	
		<a href="#">Water</a> (Private)	
		<a href="#">Controls</a> (Private)	
		<a href="#">Emission Points</a> (Private)	
		<a href="#">Soil Borings</a> (Private)	

# Institutional Support

## Applications

- Active Visual System (ATG)
- FM: AiM
- UIHC: TMA
- Housing: TMA
- ITS Telecom & Network
- Key and Access Services
- Fire & Life Safety
- HVAC Controls
- JoCo Emergency Management
- Unit Planning
- BuildUI
- PI/Energy Caps
- Roof Inventory and Maintenance
- Elevator Maintenance
- Custodial Service Level
- Campus Master Plan
- PeopleSoft
- Classroom Scheduling / Ad Astra

## Reports

- Iowa DAS Real Property
- Clery Report
- HLC Assurance Review
- National Science Foundation
- Gordian Sightlines
- UI Data Digest
- Facilities Governance Report
- EHS Fume Hood Report
- Risk Management
- Capital Asset Management

## Space Survey

- F&A and Occupant
- UIHC Annual Survey

## Imagery

- 360 Photos (Interior/Exterior)
- Aerials (Vertical Orthophotos)
- 3D Laser Scanner

## Business Intelligence

- CLAS
- CCOM
- UIHC
- CEA Budget

## Underground Site Support

- Location Requests
- Design Location Requests

**IOWA**

Building Inventory  
Lease Inventory  
Room Inventory  
GIS Mapping



Data Warehouse (DWPROD)

## Service Mapping

- 2D Campus Map
- 3D Campus Map
- Campus Map (Concept3D)
- Bicycle Infrastructure
- Classroom Walk Time
- UI Accessibility
- Parking (FIS)
- All Projects
- Construction Closures
- StoryMaps
- Campus Tours
- Campus Snow Removal Map
- East and West Campus Snow Priority Routes
- Lactation Room Map
- Single User Restroom Map

## Utilities Mapping

- All Utilities
- Chilled Water
- Air
- Electrical Distribution
- Electrical Lighting
- Gas
- ITS Fiber
- Sanitary
- Steam
- Storm Water
- Tunnels and Vaults
- Water
- Controls BAS Map
- Emission Points
- Soil Borings

## Other Campus Maps

- Smoking Areas
- Easements
- Sustainability
- University Parcels

## Site Mapping

- Trees Inventory
- Signs and Monuments
- Dumpsters Map
- Historical Markers
- Native Plants
- Art on Campus
- MNRA Trails
- Memorials
- Landscape Services
- Campus Spaces and Benches

## Printable Maps

- Main Campus
- Hawkeye Campus
- UI Research Park
- MNRA
- Named Buildings
- Institutional Roads
- Campus Parking
- Custodial Zones
- Landscape Services Zones
- Maintenance Zones
- Center for Advancement Maps
- Campus Tours

## Non-Campus Maps

- OpenStreetMaps
- Google Maps
- Apple Maps
- Tomtom Maps
- Bing Maps

**IOWA**

# Institutional Benefits

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- 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.