

# **Enterprise GIS Steering Committee Meeting**

February 22, 2024

# Agenda

- 1. Welcome and Introductions**
- 2. Enterprise GIS History**
- 3. Group Updates**
- 4. Outreach and Support**
- 5. Demonstrations**
- 6. Other Business**

# Committee Members

<https://facilities.ofa.ncsu.edu/committees/gis-steering-committee/>

## MEMBERS

Amy Orders	Senior Director	Environmental Health & Public Safety
Lisa Johnson	Assistant Vice Chancellor, University Architect	Campus Planning & Strategic Investment
Allen Boyette	Assistant Vice Chancellor	Campus Operations & Maintenance
Sarah Ketchem	Director	Landscape Maintenance & Operations
Kim Vassiliadis	Assistant Vice Chancellor	OIT Outreach, Communications & Consulting

# Enterprise GIS History

**2014**

First web-enabled GIS server set up within Facilities Division

**2015**

First GIS Needs Assessment completed

Recurring GIS budget created by Vice Chancellor Charlie Leffler

New GIS positions hired in Utilities & Engineering and Office of the University Architect

**2016**

Parcel Fabric model (Wolftracts) implemented

First Enterprise GIS Steering Committee meeting

**2017**

Campus Map moves to an Esri-based platform

Utilities Functional Requirements completed

Stormwater Pilot project begins utilities implementation

**2018**

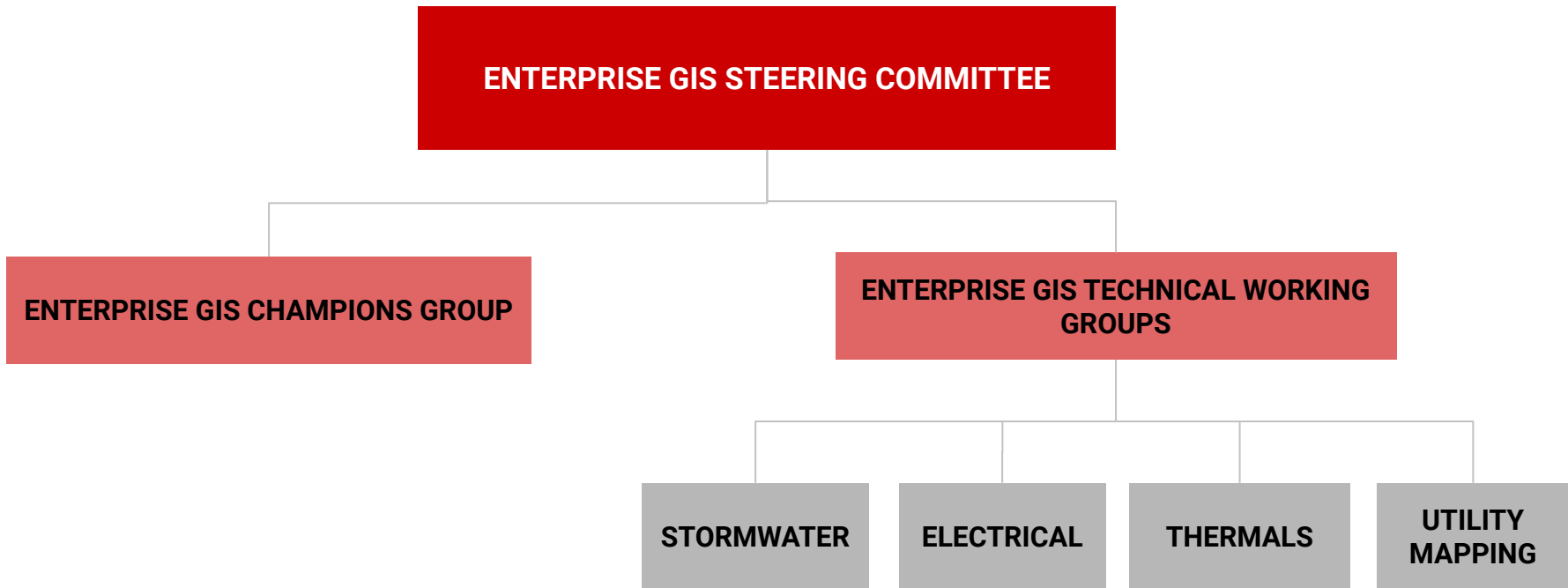
Stormwater implemented

GIS Needs Assessment updated

# Enterprise GIS History

2019	2020	2021	2022	2023
<p>Water Distribution implemented</p> <p>Sanitary Sewer implemented</p> <p>First Utilities Viewer training class</p> <p>Chilled Water implemented</p>	<p>Steam implemented</p> <p>North and Central Campus Aerial Survey completed</p> <p>Statewide parcel inventory completed</p>	<p>Electrical implemented</p>	<p>ArcGIS Enterprise upgrade and Portal implementation</p> <p>New app development: Sustainability, Inclement Weather, BM&amp;O and Housekeeping</p> <p>New 3-year Roadmap completed</p>	<p>Centennial Aerial Survey completed</p> <p>ArcGIS Indoors pilot</p> <p>Parcel Fabric upgraded to ArcGIS Pro</p> <p>All-in-One Assessment project completed</p>

# Group Updates



*DATA SPECIFIC WORKING GROUPS*

# Group Updates

## Enterprise GIS Champions

- Inter-departmental GIS user community - 29 members
- Meeting 1-2 times per year and sending information via newsletter

<b>Departments Represented</b>	
<p>Campus Planning &amp; Strategic Investment</p> <ul style="list-style-type: none"> <li>● Facilities Information Systems (FIS) / GIS</li> <li>● University Surveyor</li> <li>● Infrastructure Planning</li> <li>● Sustainability</li> </ul> <p>Campus Operations &amp; Maintenance</p> <ul style="list-style-type: none"> <li>● Utilities &amp; Engineering</li> <li>● Landscape Maintenance &amp; Operations</li> <li>● Waste Reduction and Recycling</li> <li>● Building Maintenance &amp; Operations</li> <li>● Energy Management</li> <li>● Housekeeping</li> </ul>	<p>Business Systems</p> <p>Transportation</p> <p>Emergency Preparedness &amp; Strategic Initiatives</p> <p>EH&amp;S - Environmental Affairs</p> <p>University Real Estate and Development</p> <p>Office of Information Technology - ComTech</p> <p>NC State Libraries</p>

# Group Updates

## Stormwater Technical Working Group

- Coordinating with Campus Operations and Maintenance led Stormwater Objective efforts
- Current Top Priorities
  - Integration between GIS and AiM
  - Data improvements and SOP documenting process and roles/responsibilities for maintaining and updating data
  - Resources more readily available for inspections



# Group Updates

## Thermals/Electrical Technical Working Groups

- Combining and expanding groups to become U&E Technical Working Group
- Current Top Priorities
  - Backlog of utility data updates with GIS Technician position vacant
  - Integration between GIS and AiM
  - Development/improvement of data
    - e.g. meters, street lights
  - Field data collection for markups and inspections
  - Indoors for locating assets

# Group Updates

## Utility Mapping Group

- Includes Utility Locator and ComTech
- ComTech data is still in CAD - location only in GIS
- Current Top Priorities
  - Needs assessment to look at moving ComTech data to GIS
  - Improve representation of telecom features (e.g. joint duct banks)
  - Develop attributes

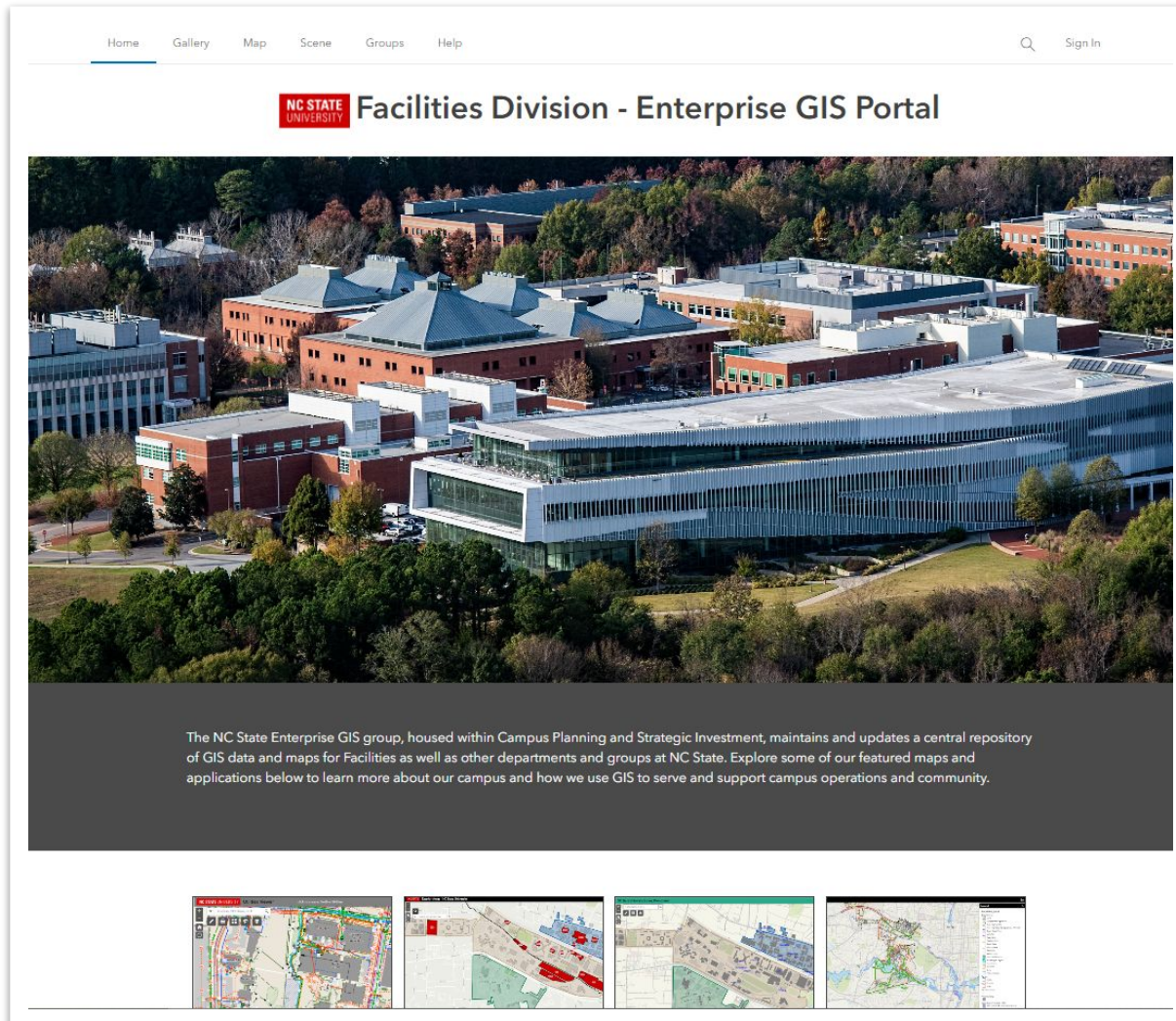
# Outreach and Support

- Training & Resources
  - Utilities Viewer training - offered twice yearly; ~75 have attended
  - Created [resource document](#) for those interested in GIS training
- GIS Day
- Student Engagement
  - [MGIST](#) Capstone projects:
    - tree inventory and maintenance, pollinator gardens, EV charging station locations, classroom usage patterns, building and acreage statistics
  - Data collection projects engaging students:
    - campus green spaces, public art, ADA curb ramps, tree inventory



# Facilities Enterprise GIS Portal


<https://go.ncsu.edu/gisportal>




Home Gallery Map Scene Groups Help

Search Sign In

**NC STATE UNIVERSITY** Facilities Division - Enterprise GIS Portal



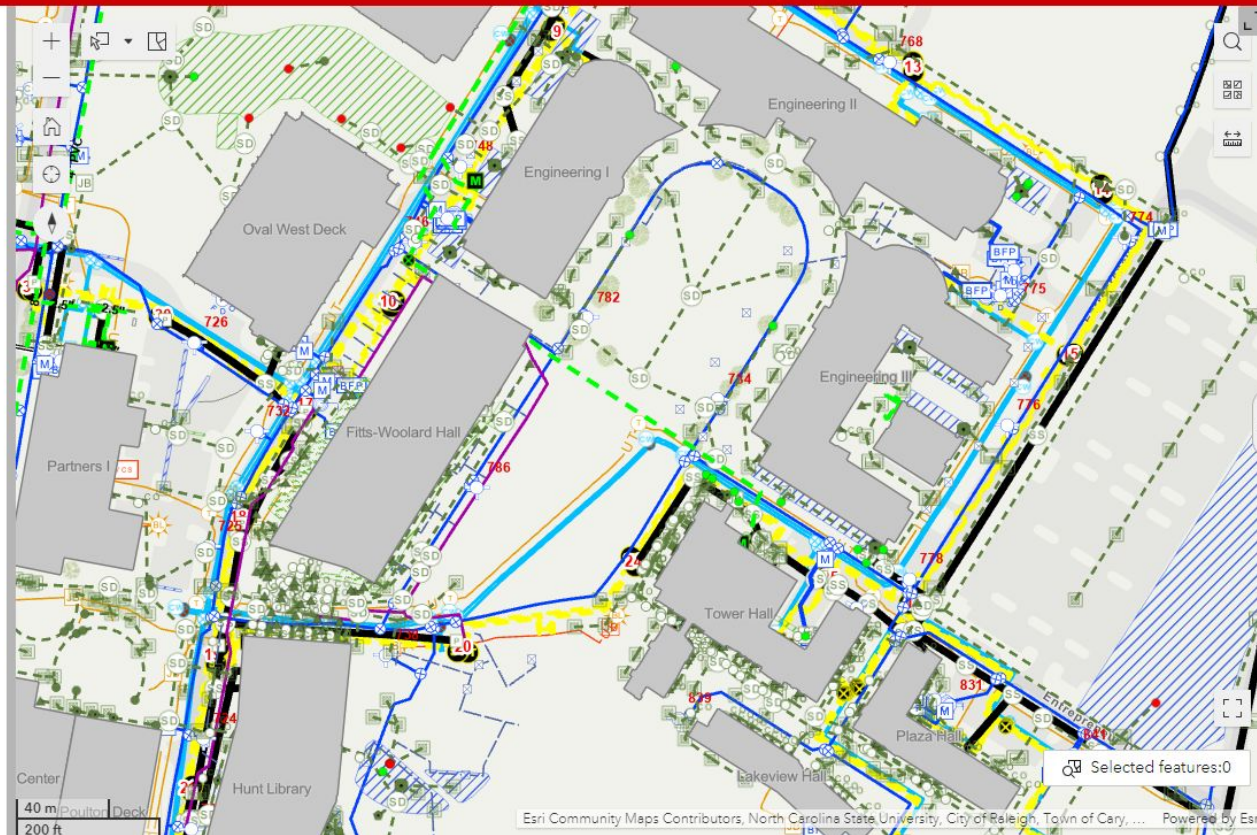
The NC State Enterprise GIS group, housed within Campus Planning and Strategic Investment, maintains and updates a central repository of GIS data and maps for Facilities as well as other departments and groups at NC State. Explore some of our featured maps and applications below to learn more about our campus and how we use GIS to serve and support campus operations and community.



# [BETA] All-in-One Application

NC STATE UNIVERSITY

[BETA] All-in-One Application



**Select Layers**  
Use arrow on sidebar for legend and other tools

- ▶  Reference Layers ...
- ▶  Public Safety ...
- ▶  Transportation ...
- ▶  Campus Maintenance & Construction ...
- ▶  Environmental ...
- ▶  Accessibility ...
- ▼  Utilities ...
  - ▶  Electric ...
  - ▶  Gas ...
  - ▶  Stormwater ...
  - ▶  Water ...
  - ▶  Sanitary Sewer ...
  - ▶  Steam ...
  - ▶  Chilled Water ...
  - ▶  Telecommunications ...
  - ▶  Utility Unknown ...

# Greenspaces

## The Idea

- Stemming from the university-wide effort of finding different ways to help students de-stress and get outside, this is an effort to increase awareness and access to outdoor spaces through a user-friendly map

## Who's involved?

- NCSU Mental Health Task Force in collaboration with Campus Planning and Strategic Investment

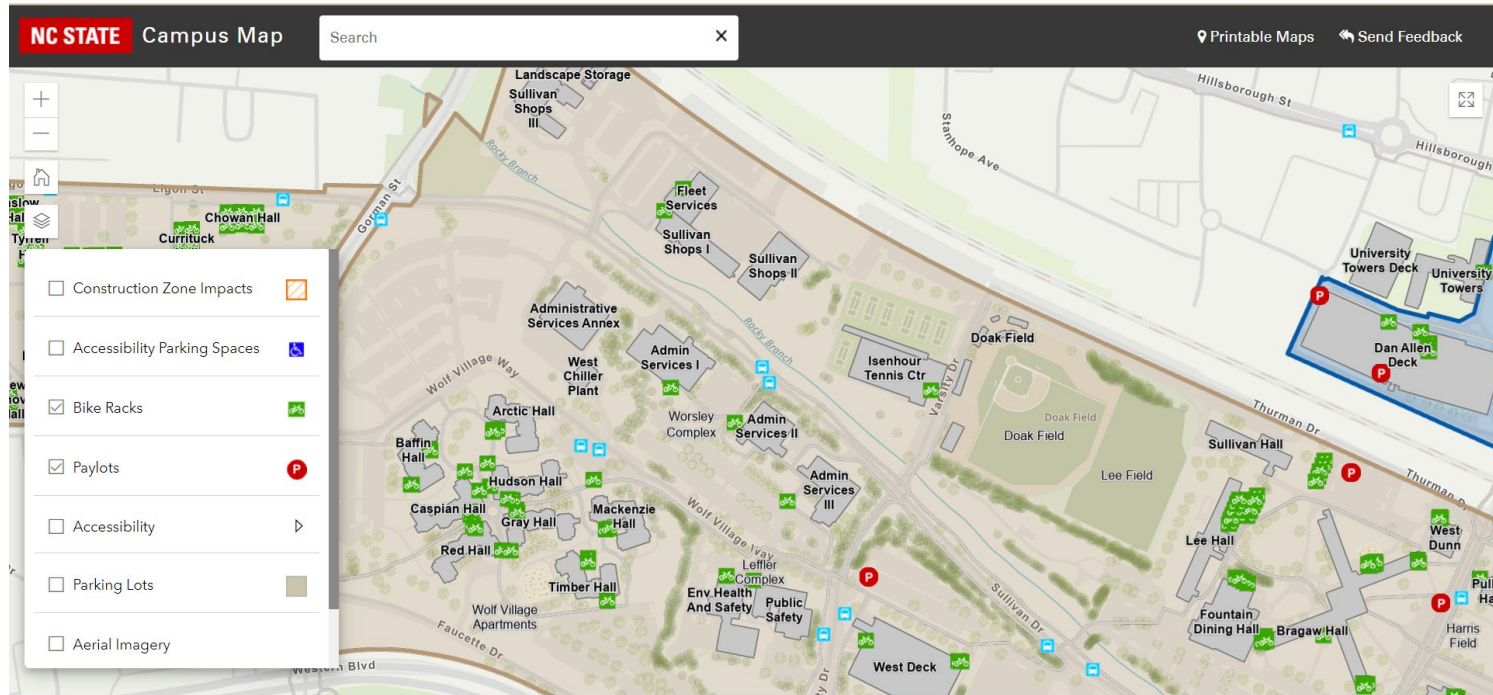
Example of what map could look like



# Campus Map

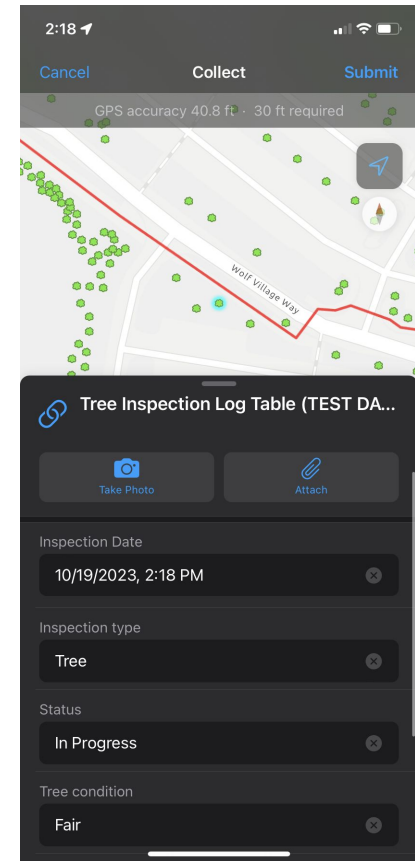
## New Features:

- Bike Racks
- Search Bar Improvements



# Enterprise GIS Field Applications

- Using mobile devices and GIS field map applications
  - Streamline data collection
  - Replace paper workflows
- Examples
  - Tree Inventory and Maintenance
  - Sanitary Sewer Inspections
  - ADA Curb Cuts
  - AEDs, Fire Extinguishers, Security Stanchions





# ArcGIS Indoors

- Indoor GIS for mapping, wayfinding and space management
- Initial Testing:
  - Floor plan migration (CAD to GIS)
  - Integration of room data from FMI

The screenshot displays the ArcGIS Indoors web application interface. The main view is a 3D floor plan of the Engineering III building, showing various rooms and corridors. The interface includes a search bar at the top, a list of buildings on the right, and a detailed information panel for the selected building. The information panel shows the following details:

Engineering III	
OBJECTID	12
Facility ID	NCSU.CENTENNIAL.782C
Name	Engineering III
Long Name	Engineering Building III (EB3)
Site ID	NCSU.CENTENNIAL
Relative Height	0.000000
Levels Above Ground	
SHAPE_Length	753.758498
SHAPE_Area	9240.405336

# Other Business