Rochester

DCCM

Infrastructure Mapping in GIS

ASCEM Fall 2025 Conference

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DHulsey@dccm.com

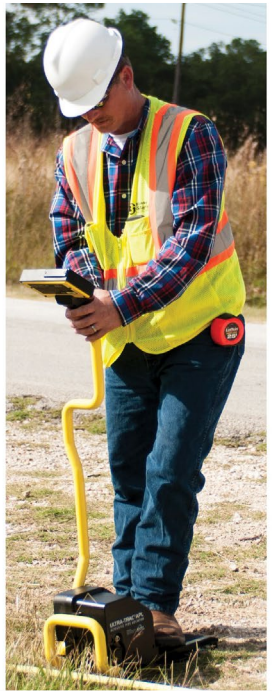
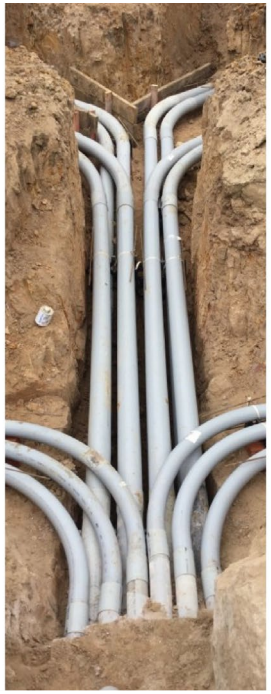
DCCM GROWTH FOR THE *future*

ASCEM
Association of South Carolina Energy Managers

Rochester & Associates, Inc

- Founded in 1966
- Offices in Gainesville and Fayetteville, Georgia
- Civil Engineering, Land Surveying, and Project Management
- 50+ Engineers, Surveyors, and Administrators
- Completed and Currently Working on 100+ Campus and Utility Map Projects
- Relationship-based, Client Focused

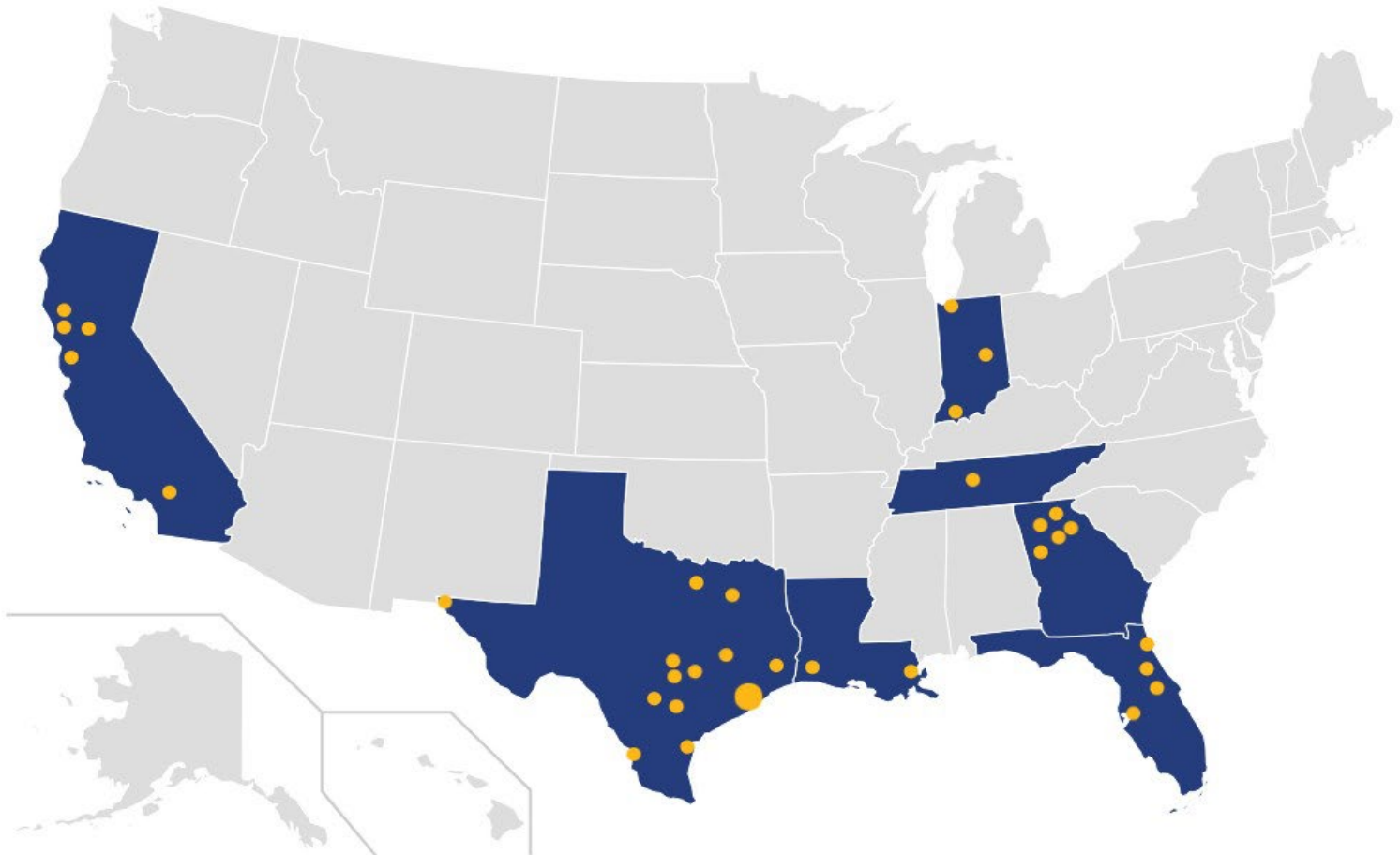
Who We Are

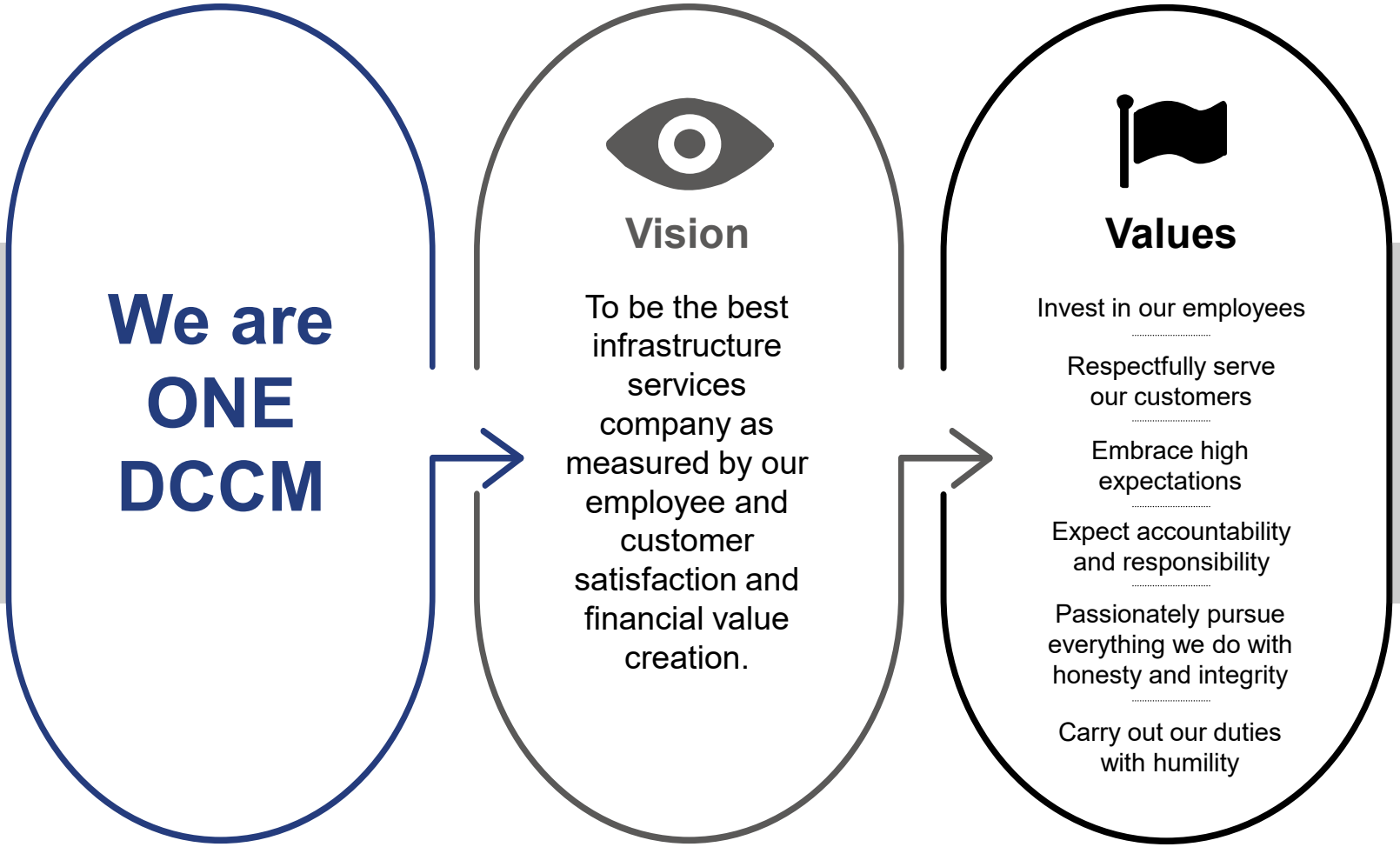

We Are DCCM

DCCM is a provider of design, consulting, and program & construction management professional services focusing on infrastructure marketplaces throughout the public and private sectors.

14	47	46	1,200	50,000+	#116	#99
Divisions	Offices	States We've Worked	Employees	Projects	ENR Top 500 Design Firm List	ENR Top 100 Pure Designers List



One Unified Enterprise



What is GIS?

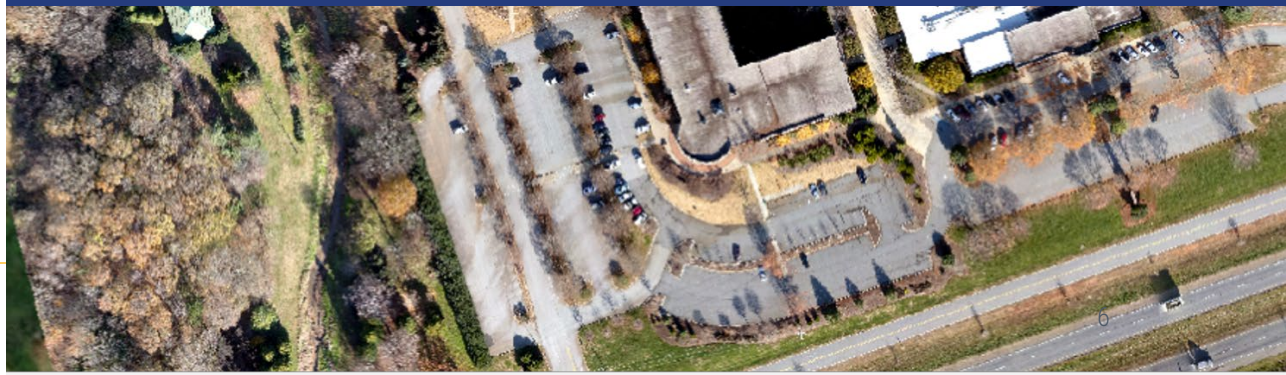
Accurate Mapping Tool

Simple to Use

Online Repository

Living Document

GIS, or Geographic Information System, is an accurate mapping tool and simple-to-use online repository that enhances spatial data management. It increases work order efficiency by providing a streamlined platform for organizing and analyzing geographic information.



Infrastructure Mapping in GIS

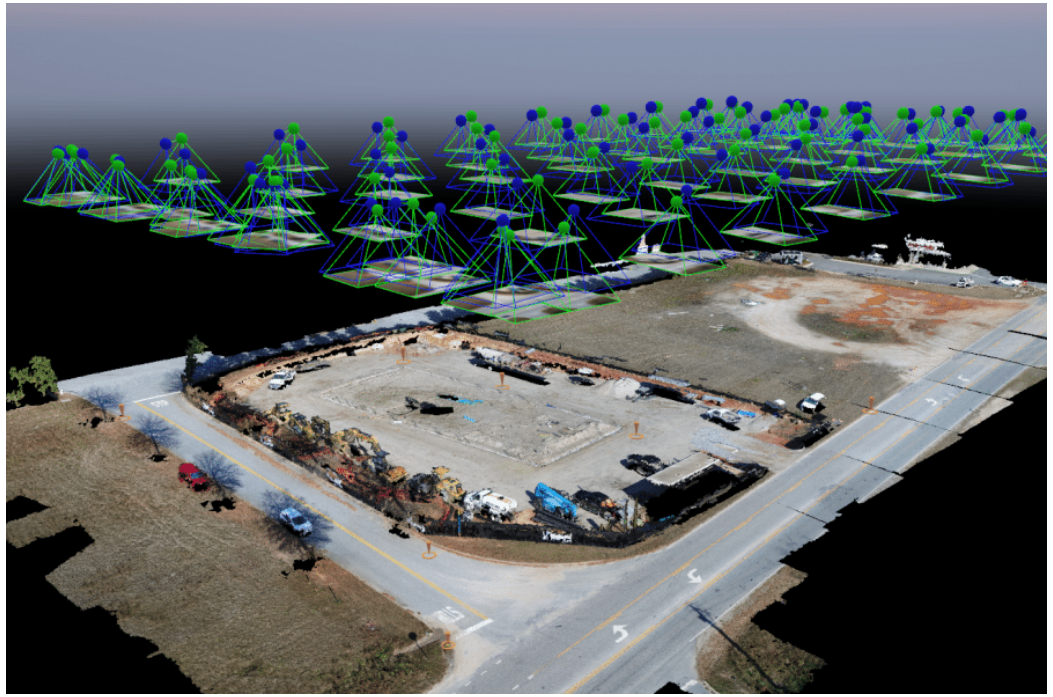
Infrastructure Mapping in GIS” is the process of using Geographic Information Systems (GIS) to capture, visualize, and analyze the location and condition of essential assets such as roads, utilities, pipelines, bridges, and communication networks. It creates a spatial representation of infrastructure, allowing planners, engineers, and decision-makers to see how systems connect, monitor performance, identify risks, and plan improvements more effectively.

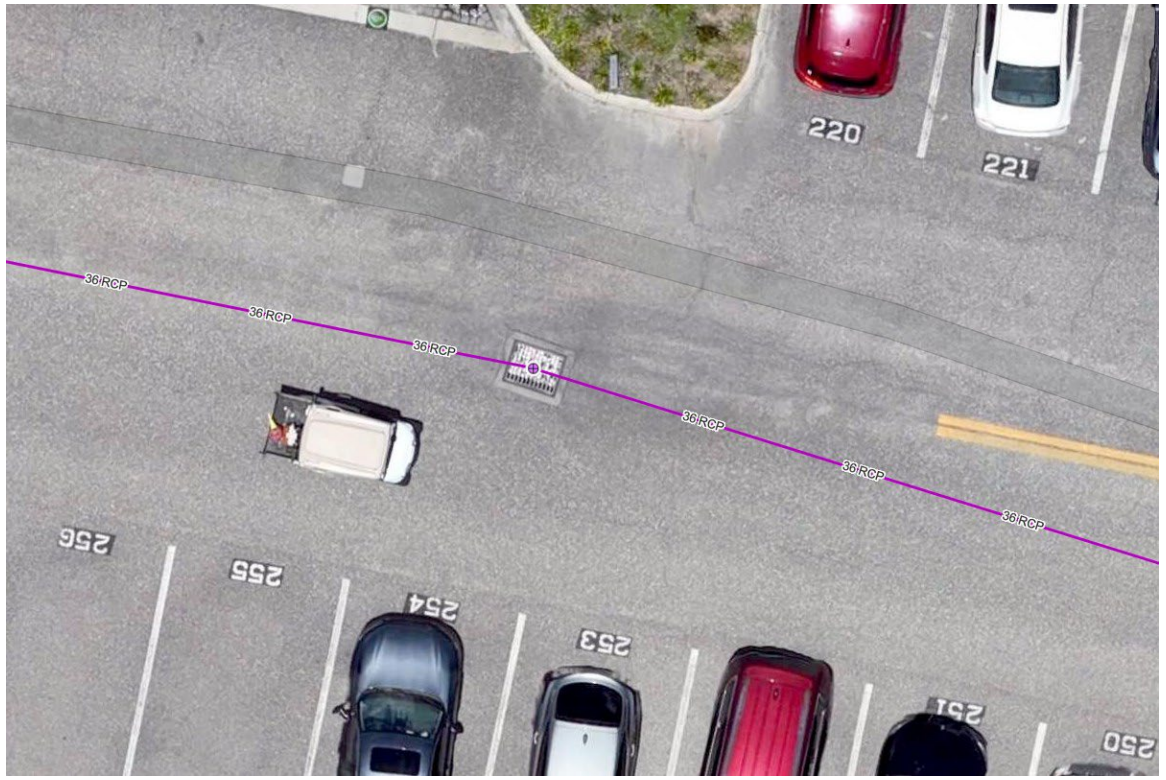
GIS Infrastructure Mapping Methods

- Drone Imagery and LiDAR Terrain Mapping
- GPS and Total Station Above Ground Feature Surveying
- Radio Location and Ground Penetrating Radar Subsurface Utility Locating
- Review of Existing Plans
- Facilities Expert Reviews

Drone Photogrammetric Imagery

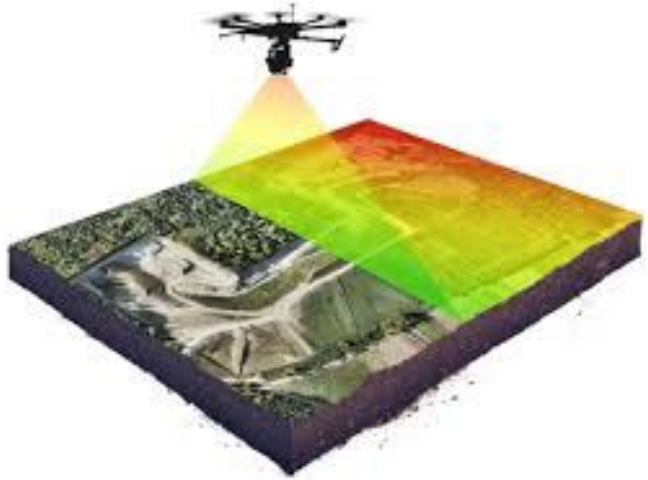
- Fast and Efficient Collection
- Accurate Results
- 1 Inch Resolution Imagery

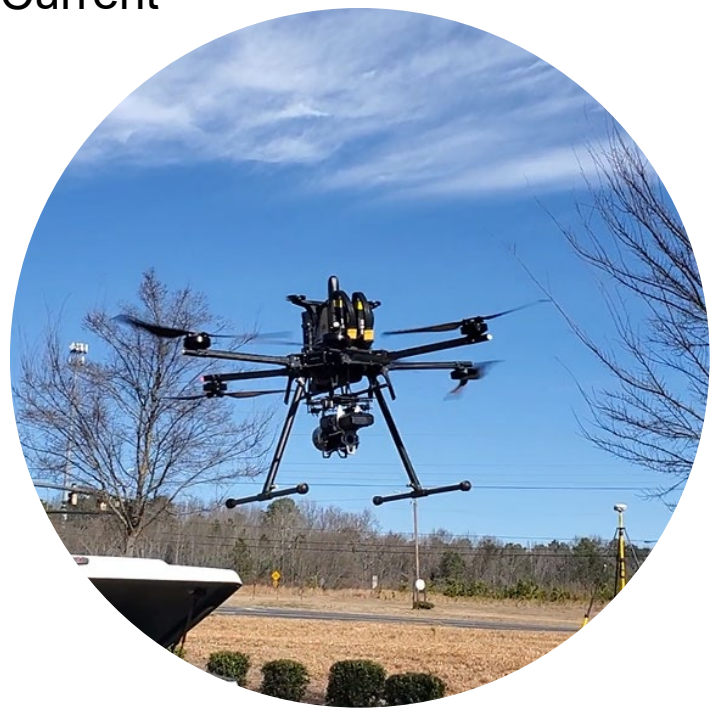


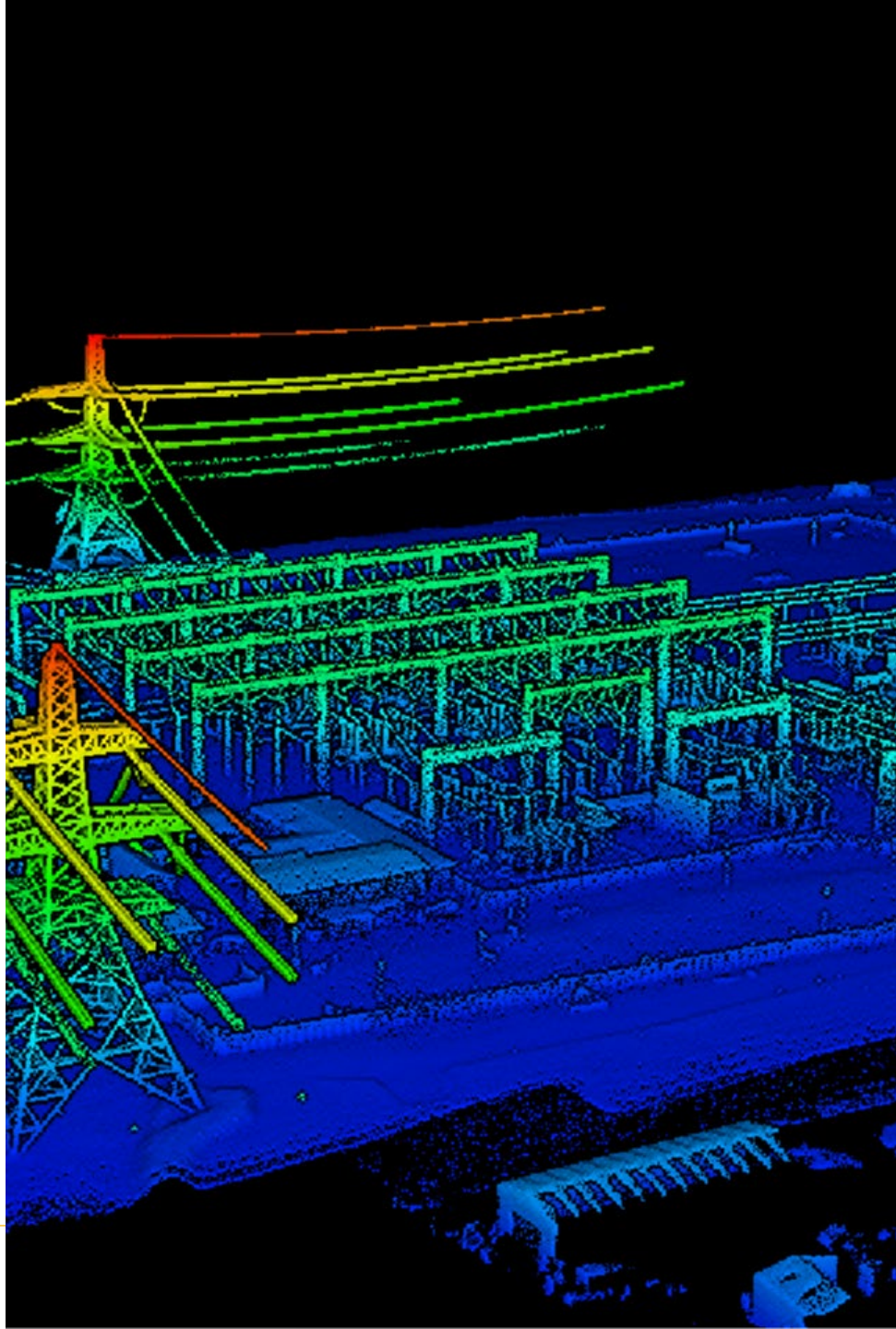


Drone LiDAR Mapping

- Geospatially Accurate
- High Resolution
- Current







Professional Drone Operators

- FAA Part 107 Certified
- Federal Government Blue Listed Equipment
- Hundreds of Sites Mapped
- Thousands of Hours of Drone Operation Experience In the Military and Civilian Sectors

INSPIRED FLIGHT

GEOCUE

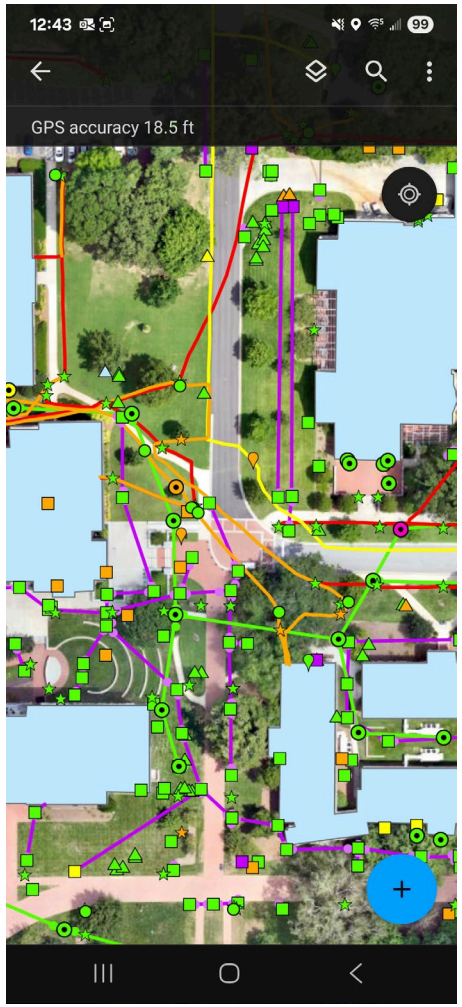
Drone mapping Carried Out On:

- College and University Campuses
- K-12 Schools
- Hospitals
- Industrial Facilities
- Construction Sites
- Military Bases

Above Ground Utility Feature Surveying

Trimble Mobile Manager

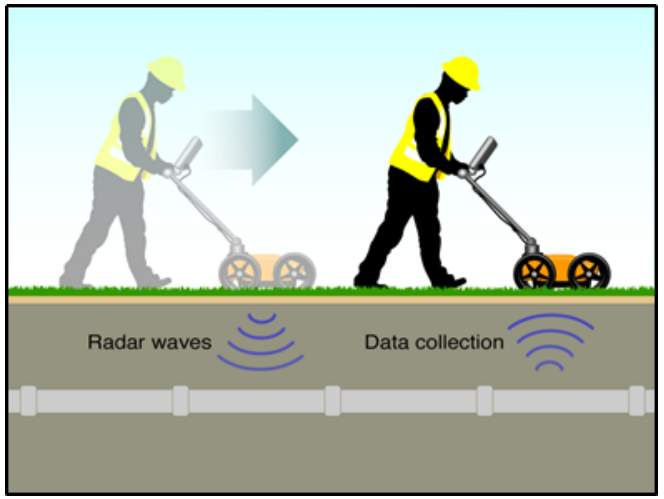
ArcGIS Field Maps



Subsurface Utility Locating

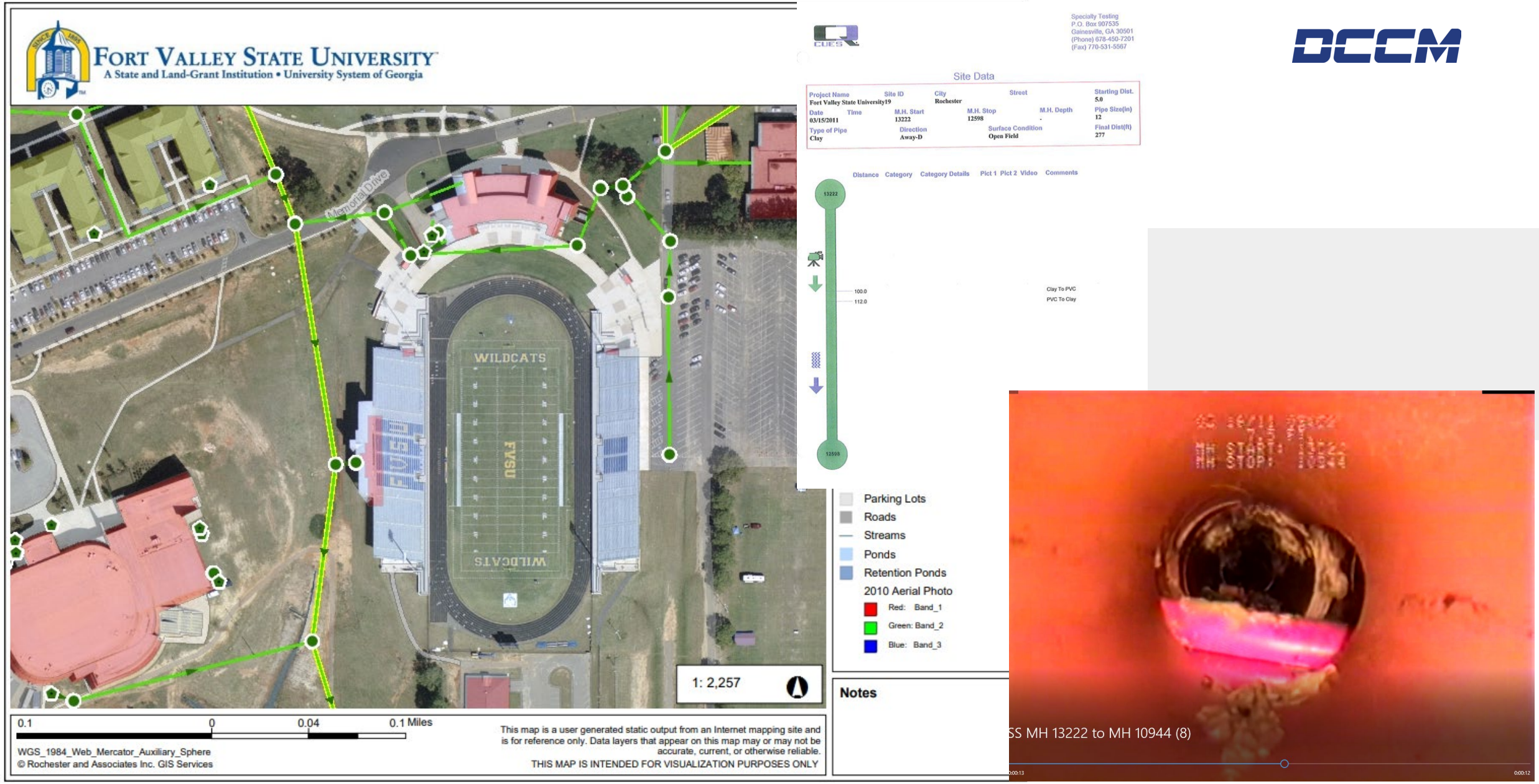
Radio Location

Ground Penetrating Radar



Facility Utility Map

Tool for accurate Underground Utility Mapping


FORT VALLEY STATE UNIVERSITY
A State and Land-Grant Institution • University System of Georgia
Memorial Drive
WILDCATS
FVSU
WILDCATS
1: 2,257
0.1
0
0.04
0.1 Miles
WGS_1984_Web_Mercator_Auxiliary_Sphere
© Rochester and Associates Inc. GIS Services
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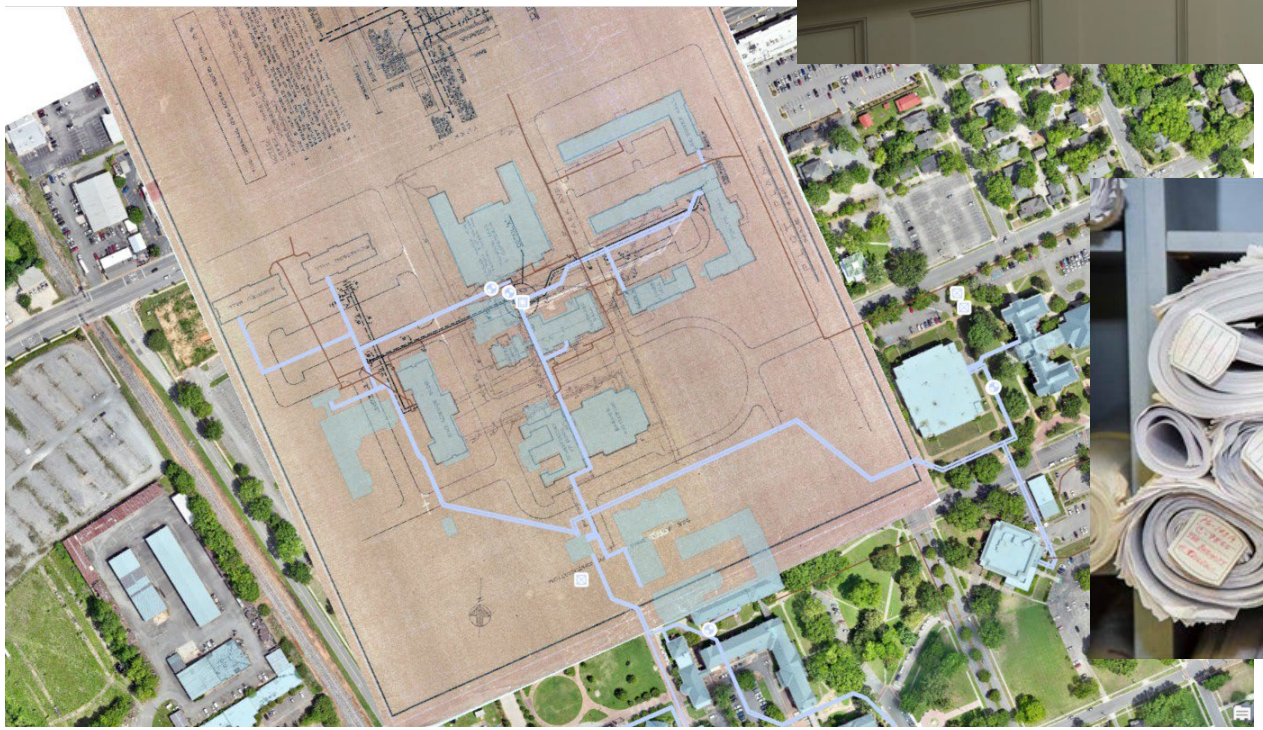
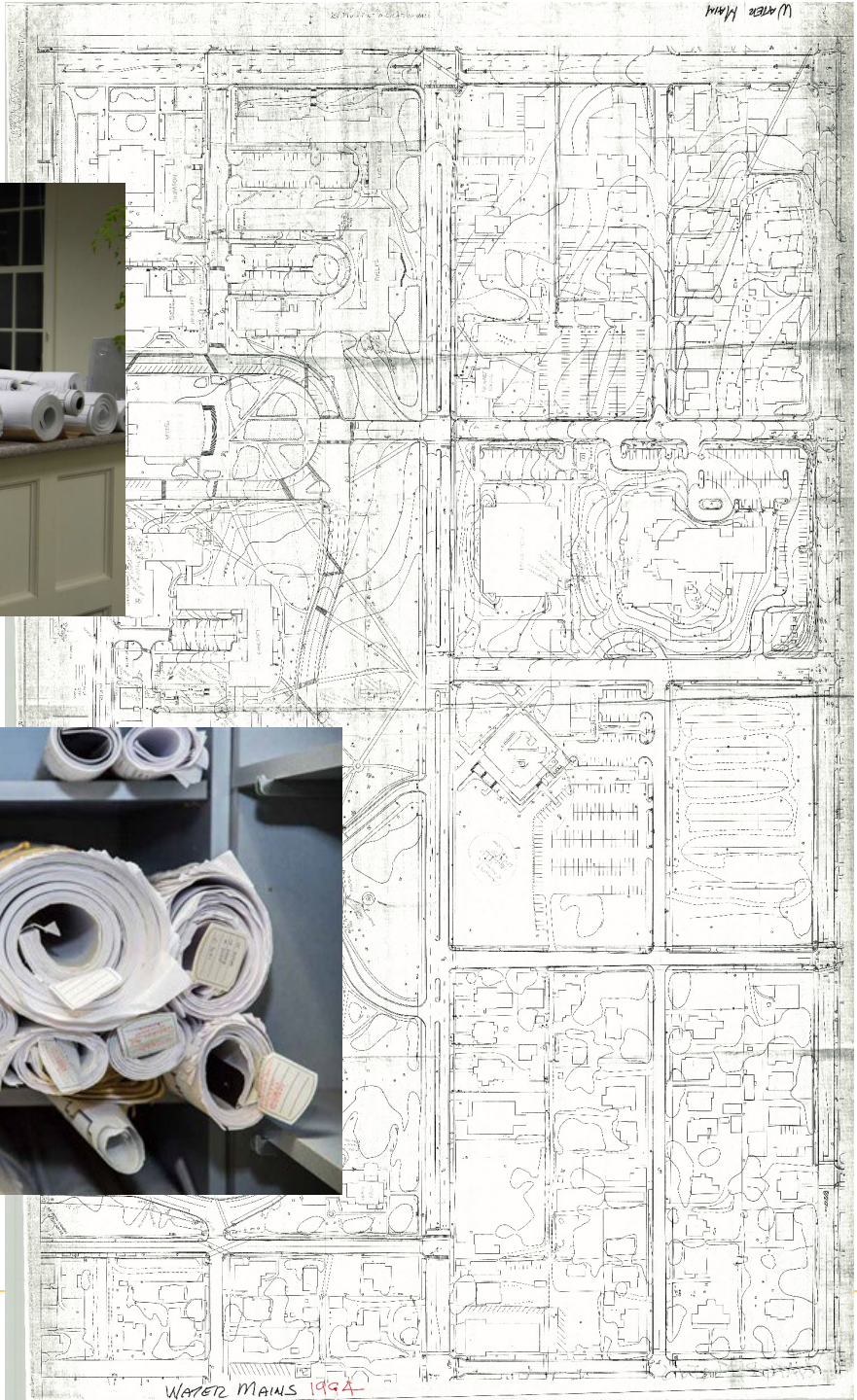
Specialty Testing
P.O. Box 907535
Gainesville, GA 30501
(Phone) 678-450-7201
(Fax) 770-531-5567
Site Data
Project Name
Fort Valley State University19
Site ID
City
Rochester
Street
Starting Dist.
5.0
Date
03/15/2011
Time
M.H. Start
13222
M.H. Stop
12598
M.H. Depth
Pipe Size(In)
12
Type of Pipe
Clay
Direction
Away-D
Surface Condition
Open Field
Final Dist(ft)
277
Distance
Category
Category Details
Pict 1
Pict 2
Video
Comments
13222
100.0
112.0
12598
Clay To PVC
PVC To Clay
Parking Lots
Roads
Streams
Ponds
Retention Ponds
2010 Aerial Photo
Red: Band_1
Green: Band_2
Blue: Band_3
Notes
SS MH 13222 to MH 10944 (8)

Plans Review

- Scan Plans From the Plan Room
- Overlay In GIS





Facilities Expert Reviews

- Decades of Experience and Familiarity With the Systems
- Capture Critical Knowledge For Generations to Come

esri WebGIS Soltions

ArcGIS Field Maps

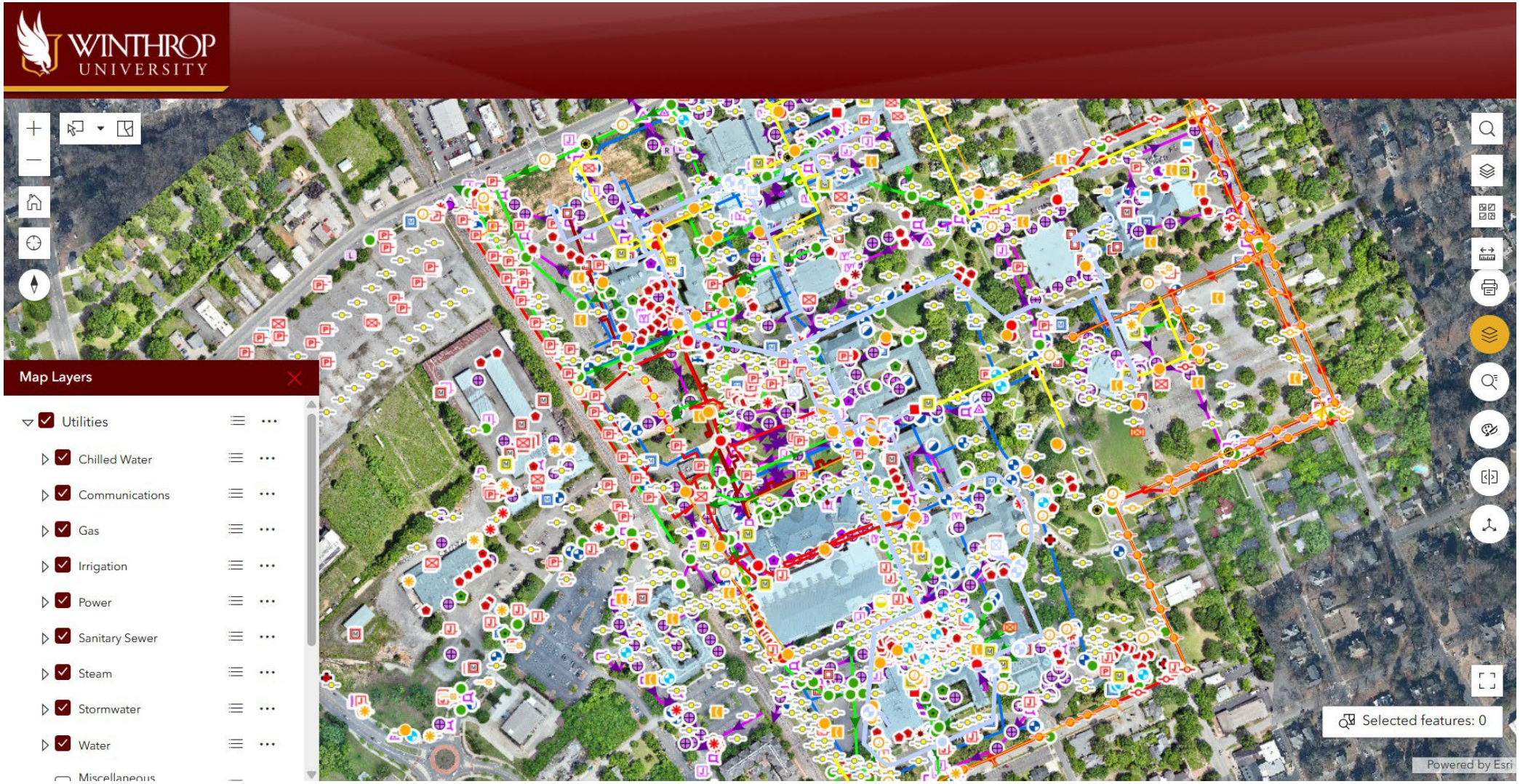
ArcGIS Pro

ArcGIS Online

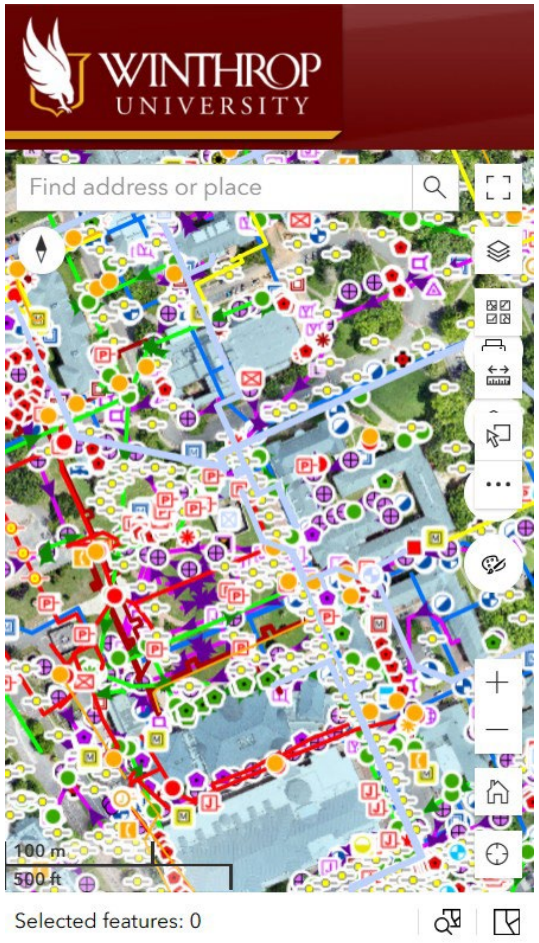
ArcGIS Enterprise

ArcGIS Experience Builder

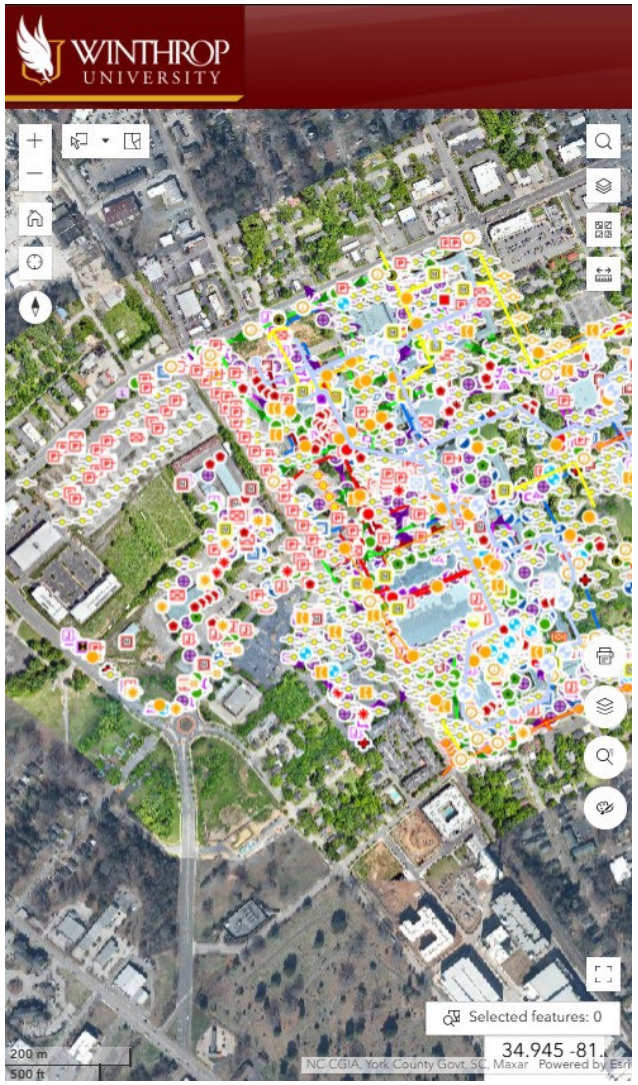
Winthrop University WebGIS



Phone and Tablet Views

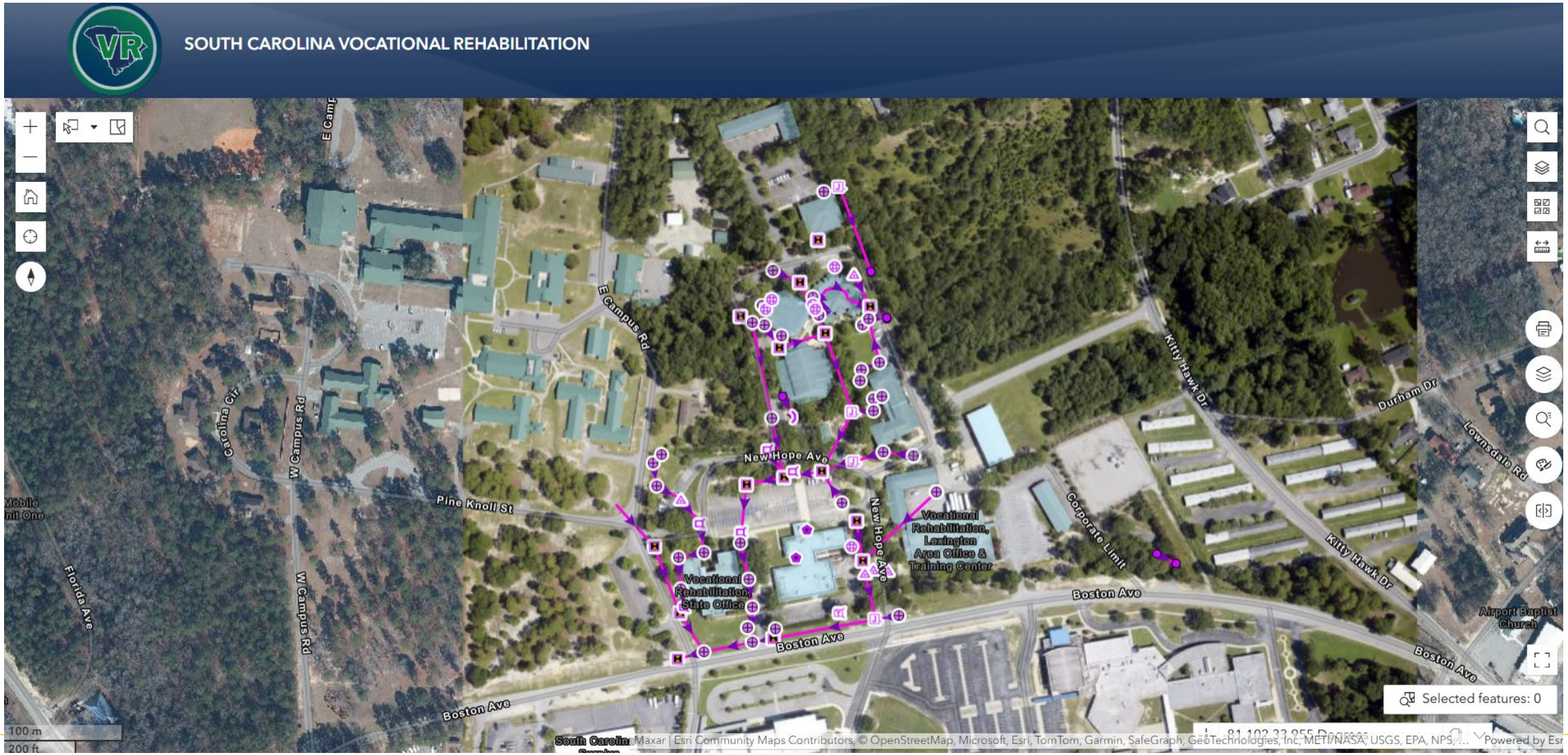


Phone View

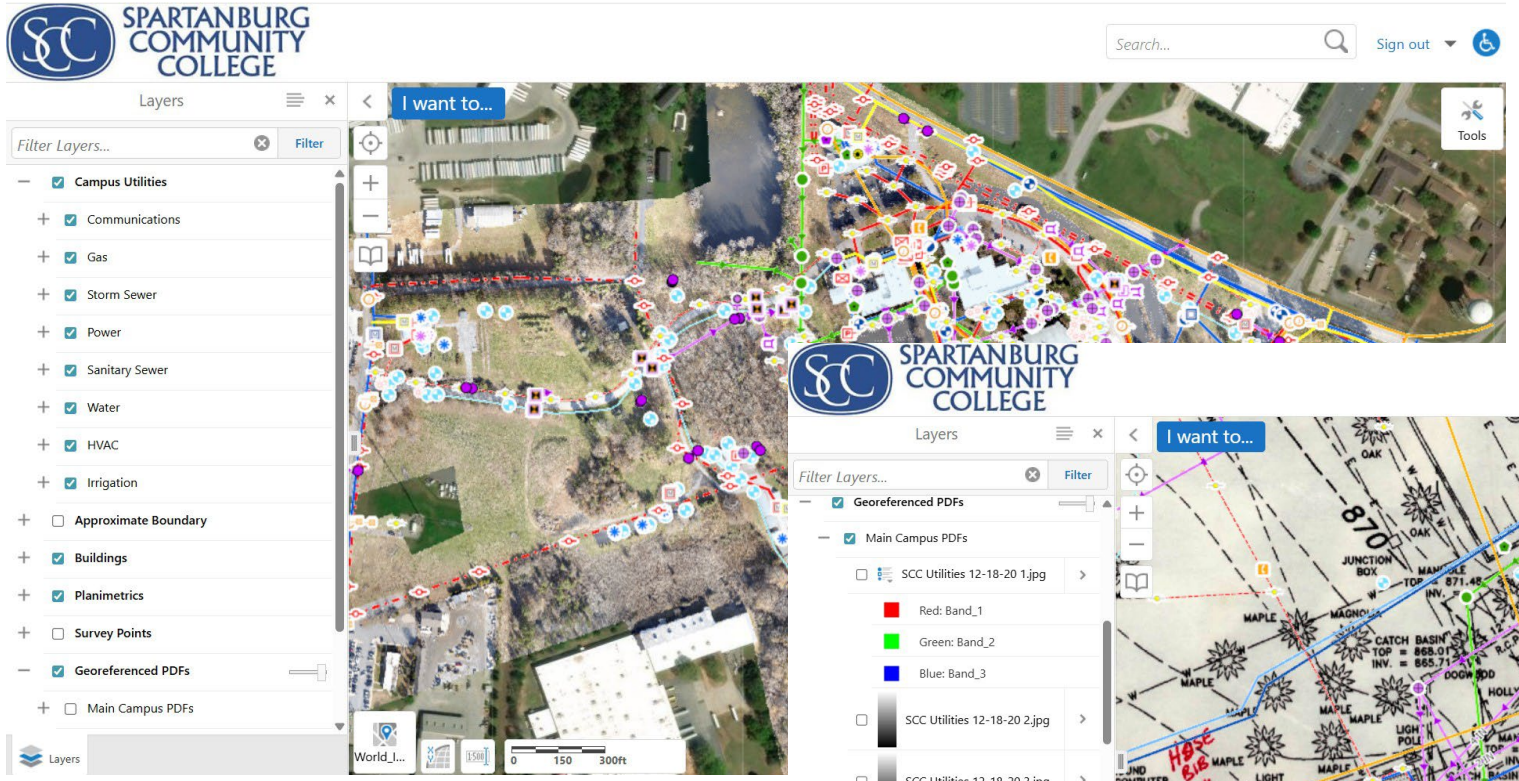


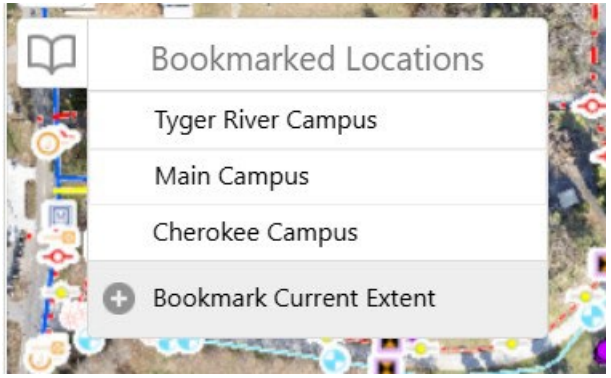
Tablet View

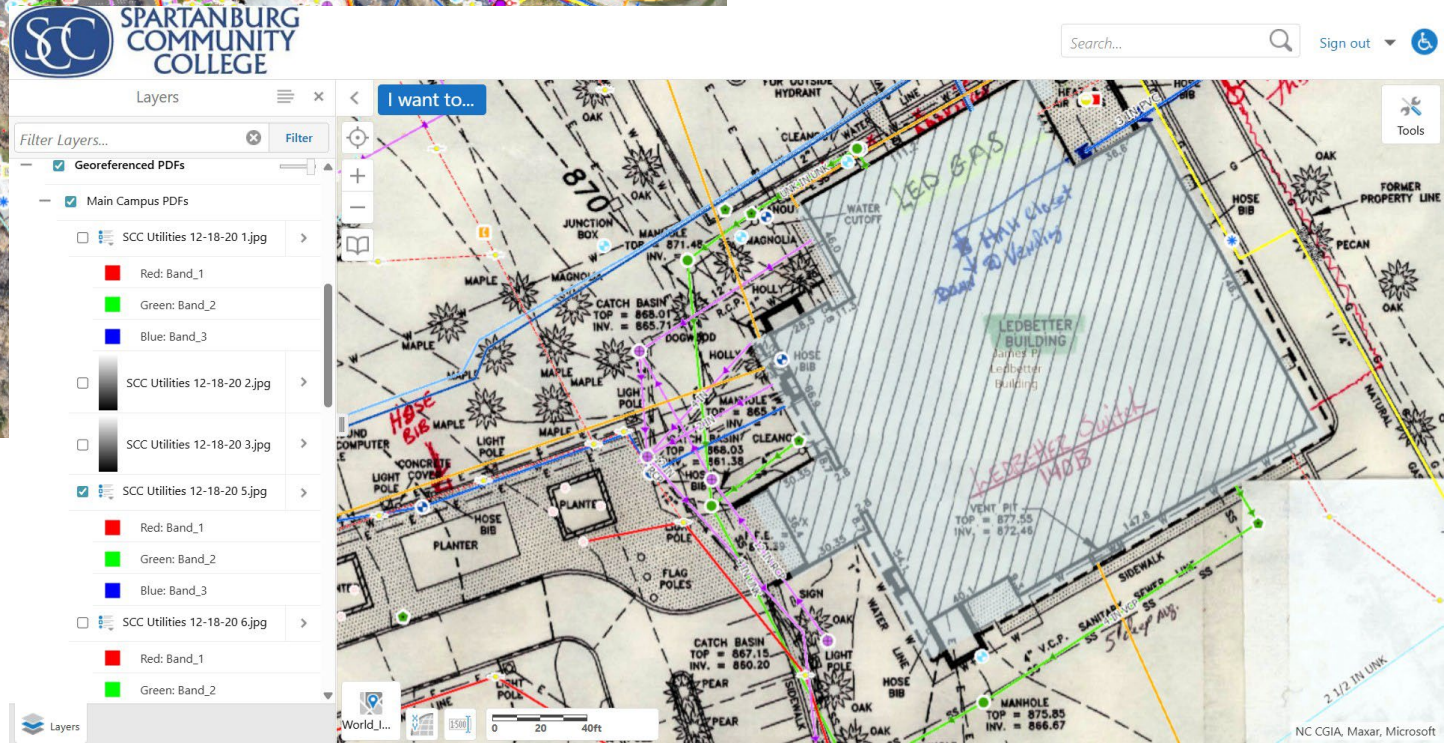
South Carolina Vocational Rehabilitation WebGIS



Spartanburg Community College WebGIS








SPARTANBURG COMMUNITY COLLEGE
Map Title
Legend
SCC_Weir_Inlets
Weir Inlets
SCC_Points_and_Lines
Communications Junction Boxes
Communications Manholes
Communications Pedestals
Emergency Phones
Approximate Communications Lines
Gas Meters
Gas Regulators
Gas Valves
Approximate Gas Lines
Curb Inlets
Drop Inlets
Flared End Sections
Headwalls
Notes
Jack A. Powers Building
"B" WING
"A" WING
P. Dan Hull Building
EAST BUILDING
EMPTY POWER CONDUIT FOR FUTURE USE
STORM MANHOLE
UNDERGROUND TELEPHONE CABLE
THIS MAP IS NOT TO BE USED FOR NAVIGATION


SPARTANBURG COMMUNITY COLLEGE
Map Title
Jack A. Powers Building
10 IN VCP
18 IN RCP
18 IN RCP
6 IN
12 IN RCP
10 IN VCP
1 1/4 IN UNK
6 IN UNK
24 IN RCP
P. Dan Hull Building
Jack A. Powers Building
6 IN UNK
Legend
SCC_Weir_Inlets
Weir Inlets
SCC_Points_and_Lines
Communications Junction Boxes
Communications Manholes
Communications Pedestals
Emergency Phones
Approximate Communications Lines
Gas Meters
Gas Regulators
Gas Valves
Approximate Gas Lines
Curb Inlets
Drop Inlets
Flared End Sections
Headwalls
Notes
0
150
300
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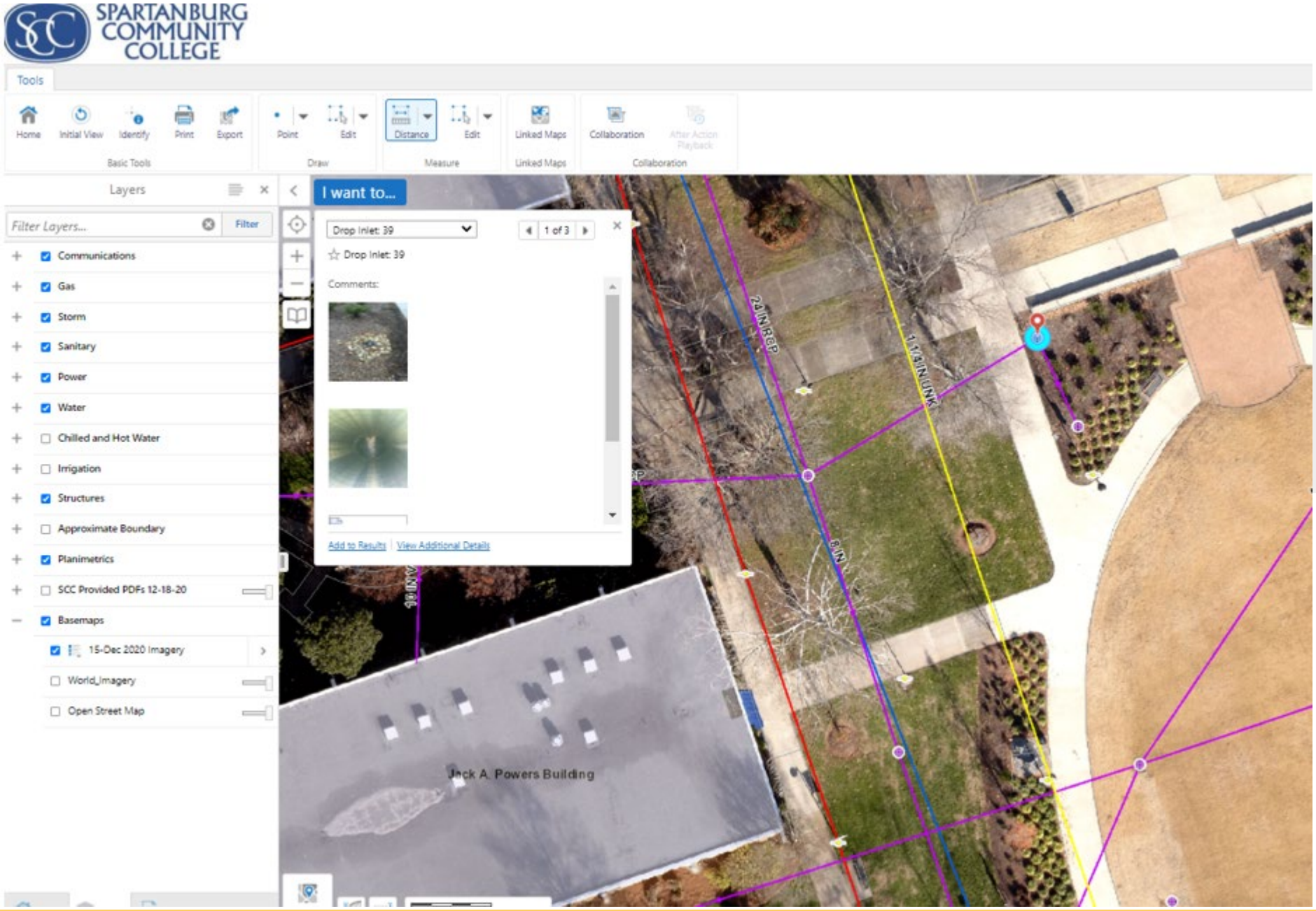
THIS MAP IS NOT TO BE USED FOR NAVIGATION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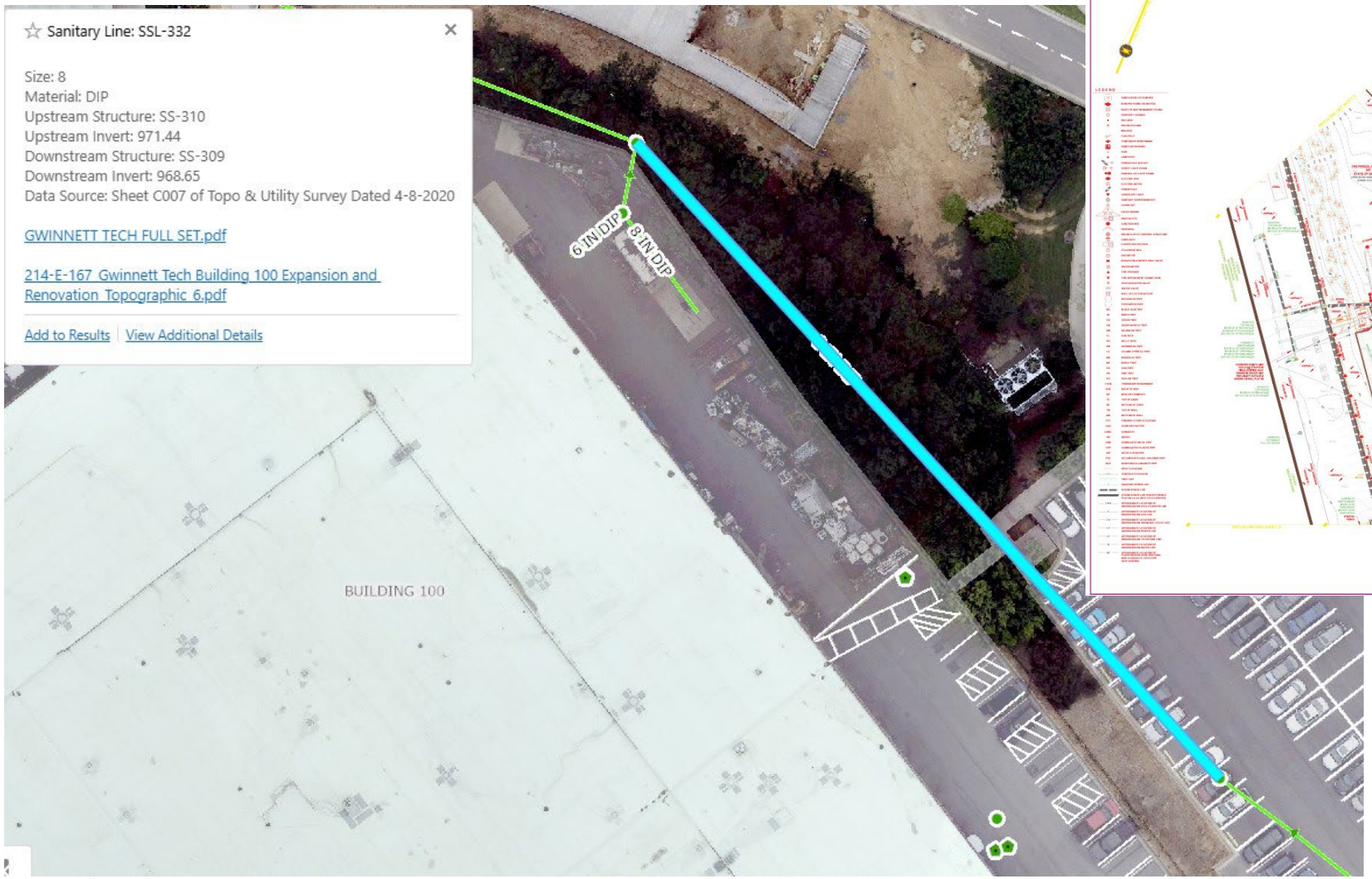
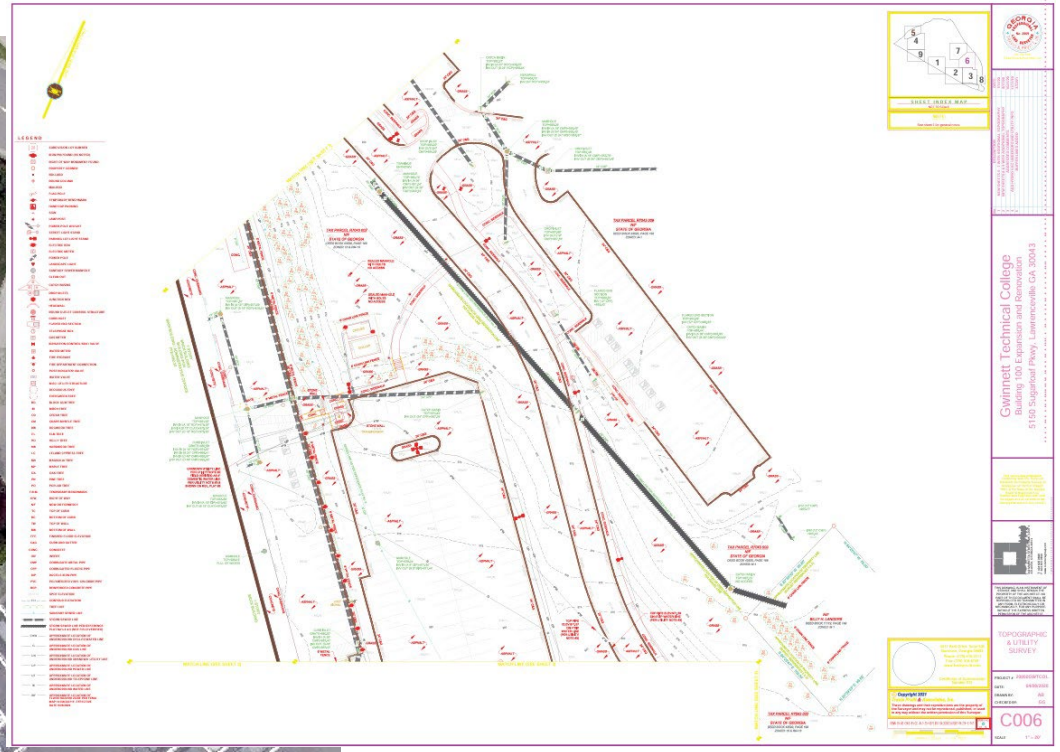
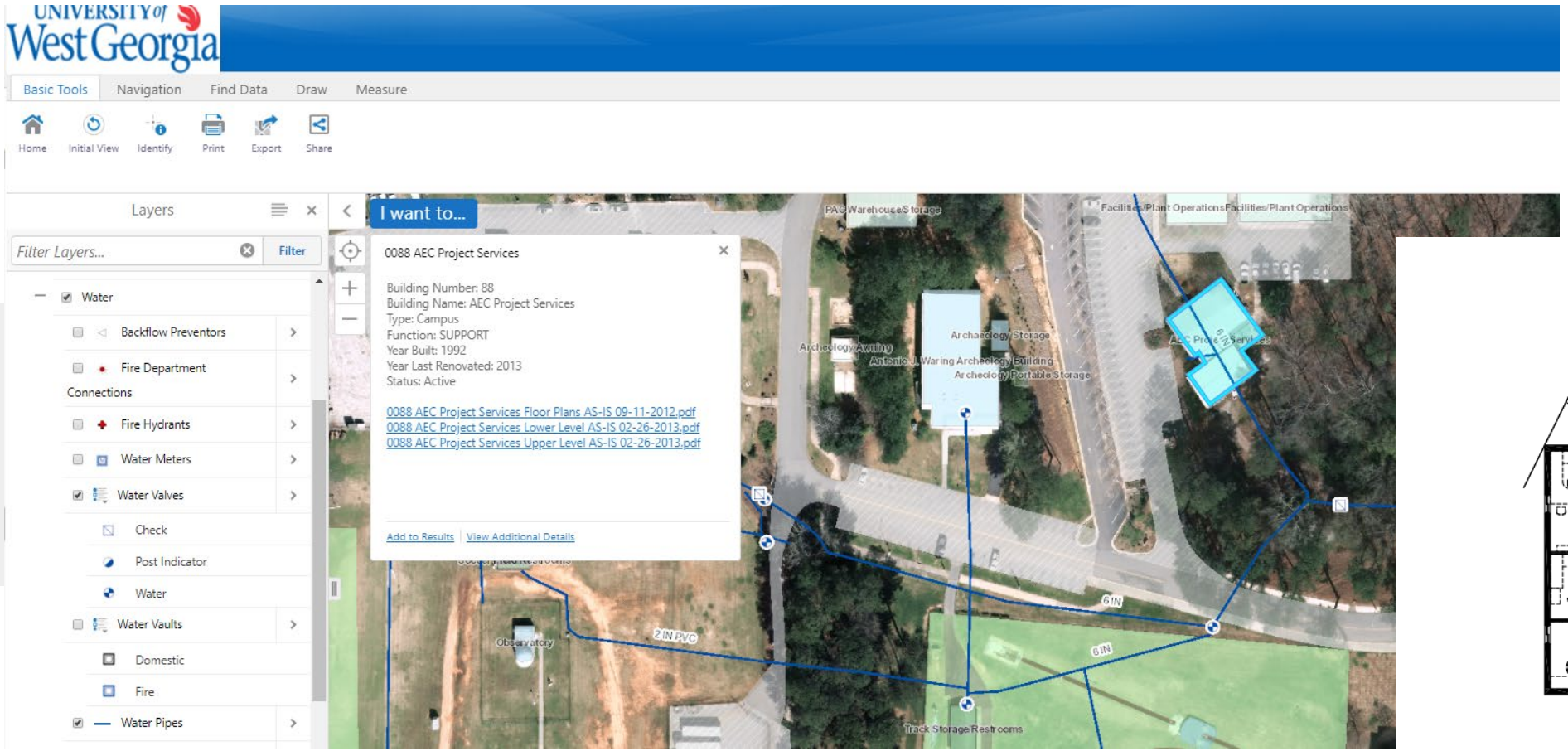
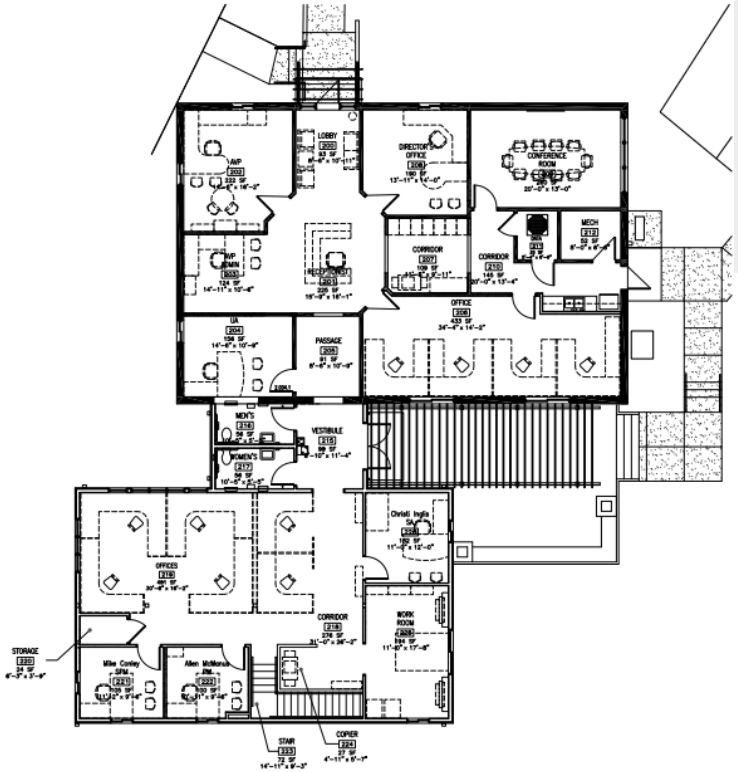
Home
Initial View
Identify
Print
Export
Basic Tools
Point
Edit
Draw
Distance
Edit
Measure
Linked Maps
Linked Maps
Collaboration
After Action Playback
Collaboration
Layers
Filter Layers...
Filter
Communications
Gas
Storm
Sanitary
Power
Water
Chilled and Hot Water
Irrigation
Structures
Approximate Boundary
Planimetrics
SCC Provided PDFs 12-18-20
Basemaps
15-Dec 2020 Imagery
World_Imagery
Open Street Map
I want to...
Drop Inlet: 39
1 of 3
Drop Inlet: 39
Comments:
Add to Results
View Additional Details
24 IN RCP
1 1/4 IN UNK
8 IN
Jack A. Powers Building

Attribute Data and Linked Plans









0088 AEC Project Services
2nd Floor 4,209 GSF


I want to...
3.0204
1 of 4
3.0204
Watersignal.com
Add to Results
View Additional Details
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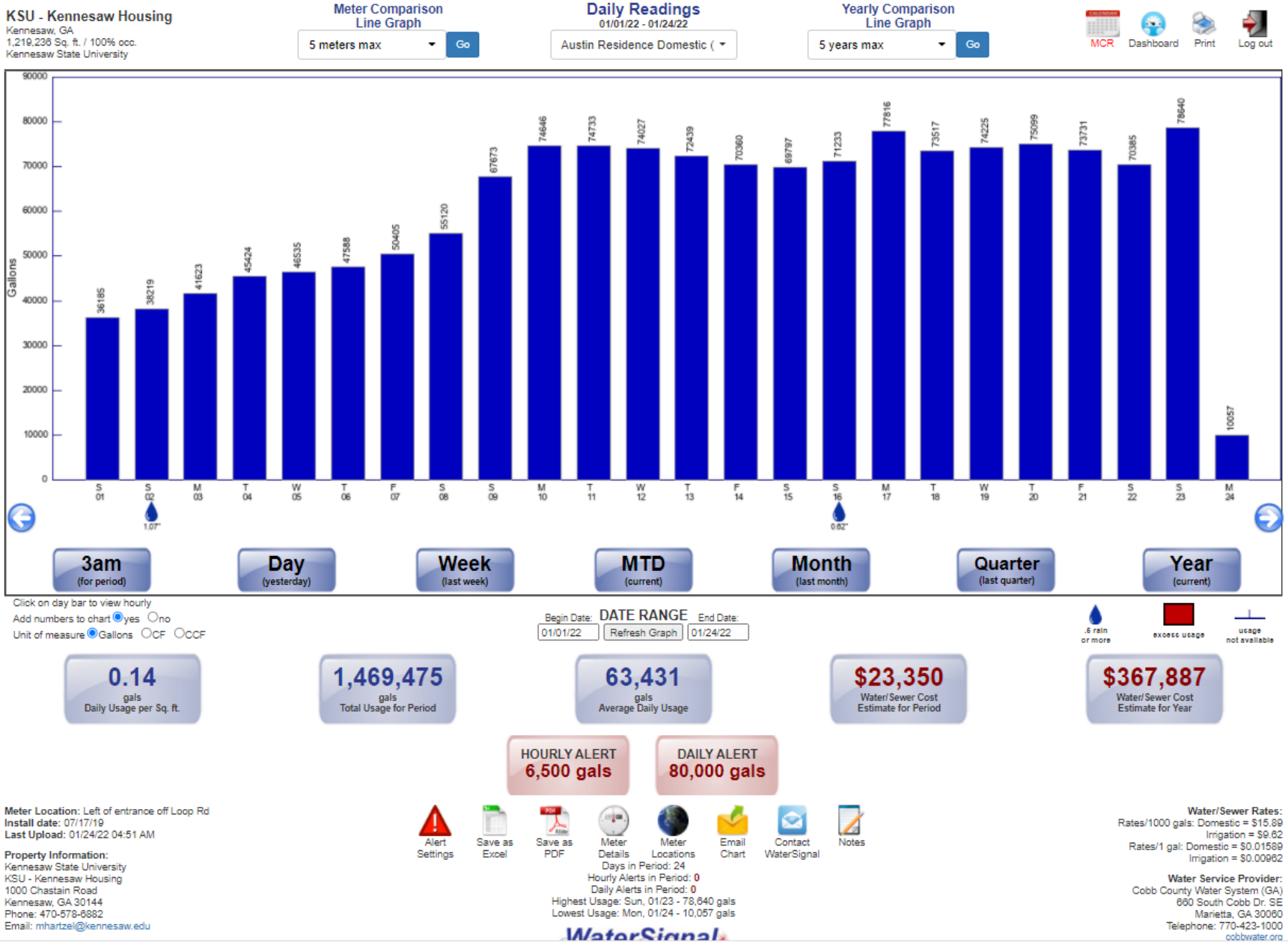
Zuckerman Museum
Lot E
Lot D
Wilson Annex
Music
Wilson
Visual Arts
Bartow Ave
English
Academic Learning Center


KSU - Kennesaw Housing
Kennesaw, GA
1,219,236 Sq. ft. / 100% occ.
Kennesaw State University
Meter Comparison Line Graph
5 meters max
Go
Daily Readings
01/01/22 - 01/24/22
Austin Residence Domestic (
Yearly Comparison Line Graph
5 years max
Go
MCR
Dashboard
Print
Log out
Gallons
36185
38219
41623
45424
46535
47588
50405
55120
67673
74646
74733
74027
72439
70360
69797
71233
77816
73517
74225
75099
73731
70385
78640
10057
1.07"
0.62"
3am (for period)
Day (yesterday)
Week (last week)
MTD (current)
Month (last month)
Quarter (last quarter)
Year (current)
Click on day bar to view hourly
Add numbers to chart yes no
Unit of measure Gallons CF CCF
Begin Date:
DATE RANGE
End Date:
01/01/22
Refresh Graph
01/24/22
.6 rain or more
excess usage
usage not available
0.14
gals
Daily Usage per Sq. ft.
1,469,475
gals
Total Usage for Period
63,431
gals
Average Daily Usage
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Water/Sewer Cost Estimate for Period
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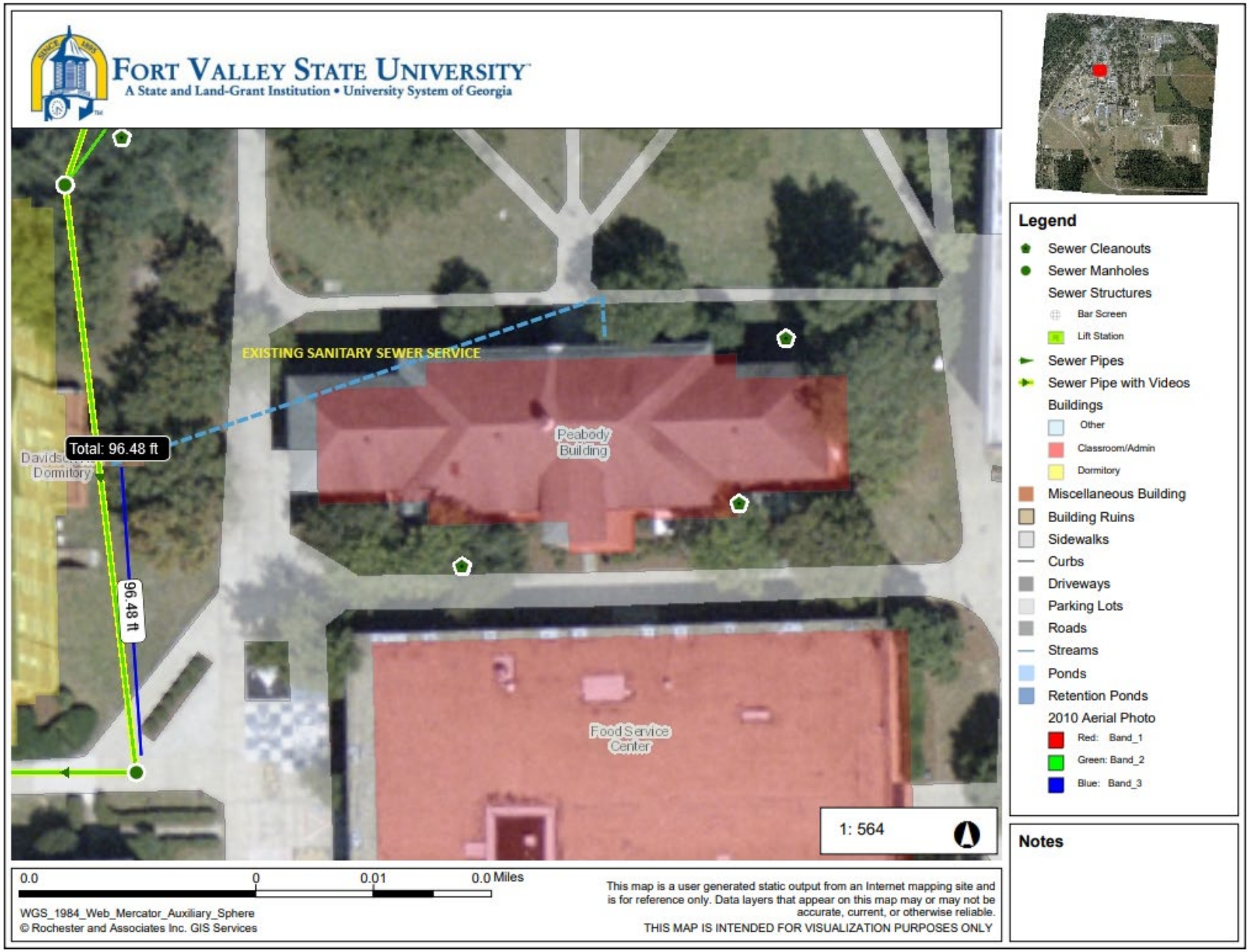
Water/Sewer Cost Estimate for Year
HOURLY ALERT
6,500 gals
DAILY ALERT
80,000 gals
Alert Settings
Save as Excel
Save as PDF
Meter Details
Meter Locations
Email Chart
Contact WaterSignal
Notes
Meter Location: Left of entrance off Loop Rd
Install date: 07/17/19
Last Upload: 01/24/22 04:51 AM
Property Information:
Kennesaw State University
KSU - Kennesaw Housing
1000 Chastain Road
Kennesaw, GA 30144
Phone: 470-578-6882
Email: mhartzel@kennesaw.edu
Days in Period: 24
Hourly Alerts in Period: 0
Daily Alerts in Period: 0
Highest Usage: Sun, 01/23 - 78,640 gals
Lowest Usage: Mon, 01/24 - 10,057 gals
WaterSignal
Water/Sewer Rates:
Rates/1000 gals: Domestic = $15.89
Irrigation = $9.62
Rates/1 gal: Domestic = $0.01589
Irrigation = $0.00962
Water Service Provider:
Cobb County Water System (GA)
660 South Cobb Dr. SE
Marietta, GA 30060
Telephone: 770-423-1000
cobbwater.org


Fort Valley State University
A State and Land-Grant Institution • University System of Georgia
EXISTING SANITARY SEWER SERVICE
Total: 96.48 ft
96.48 ft
Peabody Building
Food Service Center
Dormitory
1: 564
Legend
Sewer Cleanouts
Sewer Manholes
Sewer Structures
Bar Screen
Lift Station
Sewer Pipes
Sewer Pipe with Videos
Buildings
Other
Classroom/Admin
Dormitory
Miscellaneous Building
Building Ruins
Sidewalks
Curbs
Driveways
Parking Lots
Roads
Streams
Ponds
Retention Ponds
2010 Aerial Photo
Red: Band_1
Green: Band_2
Blue: Band_3
Notes
0.0 0 0.01 0.0 Miles
WGS_1984_Web_Mercator_Auxiliary_Sphere
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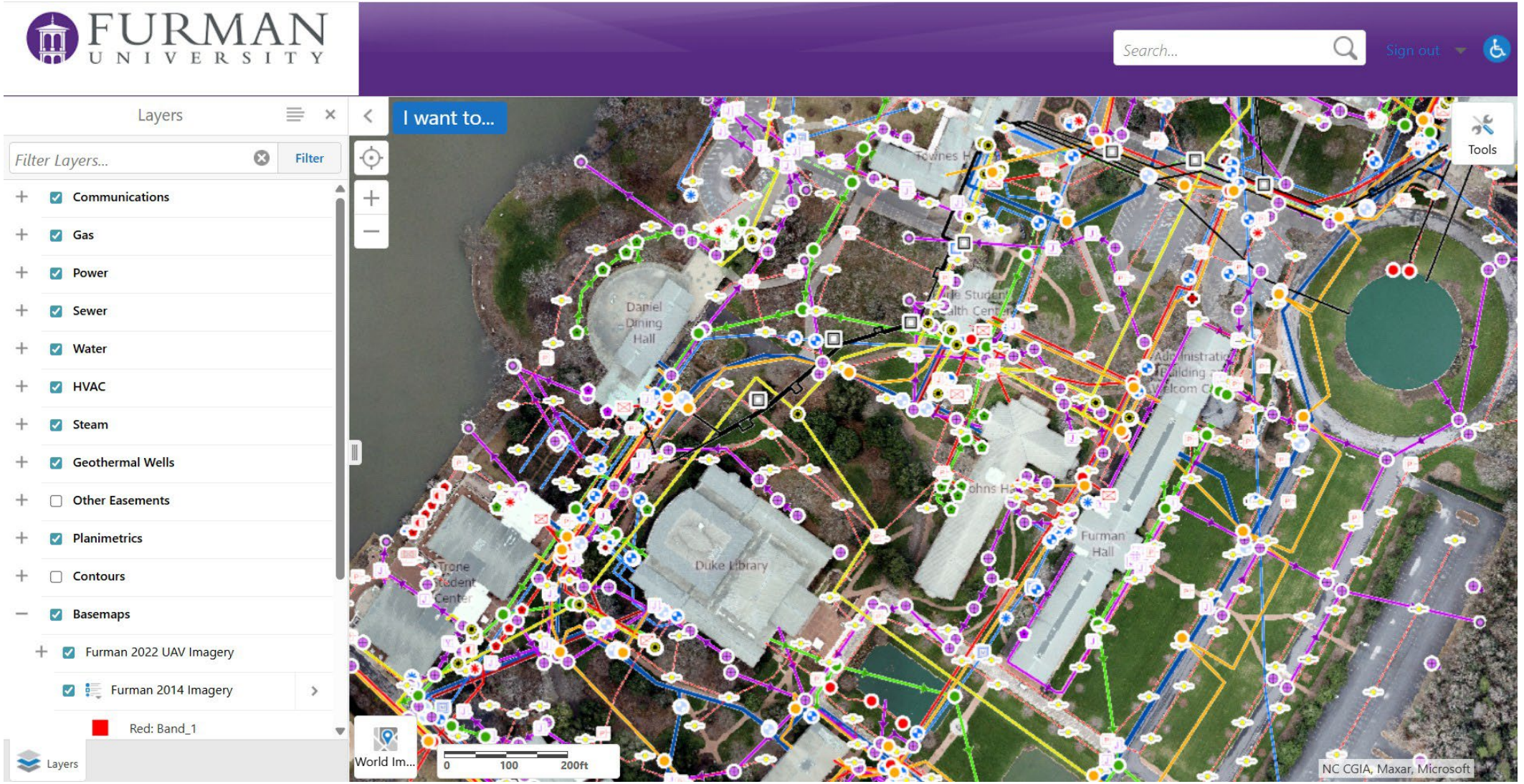
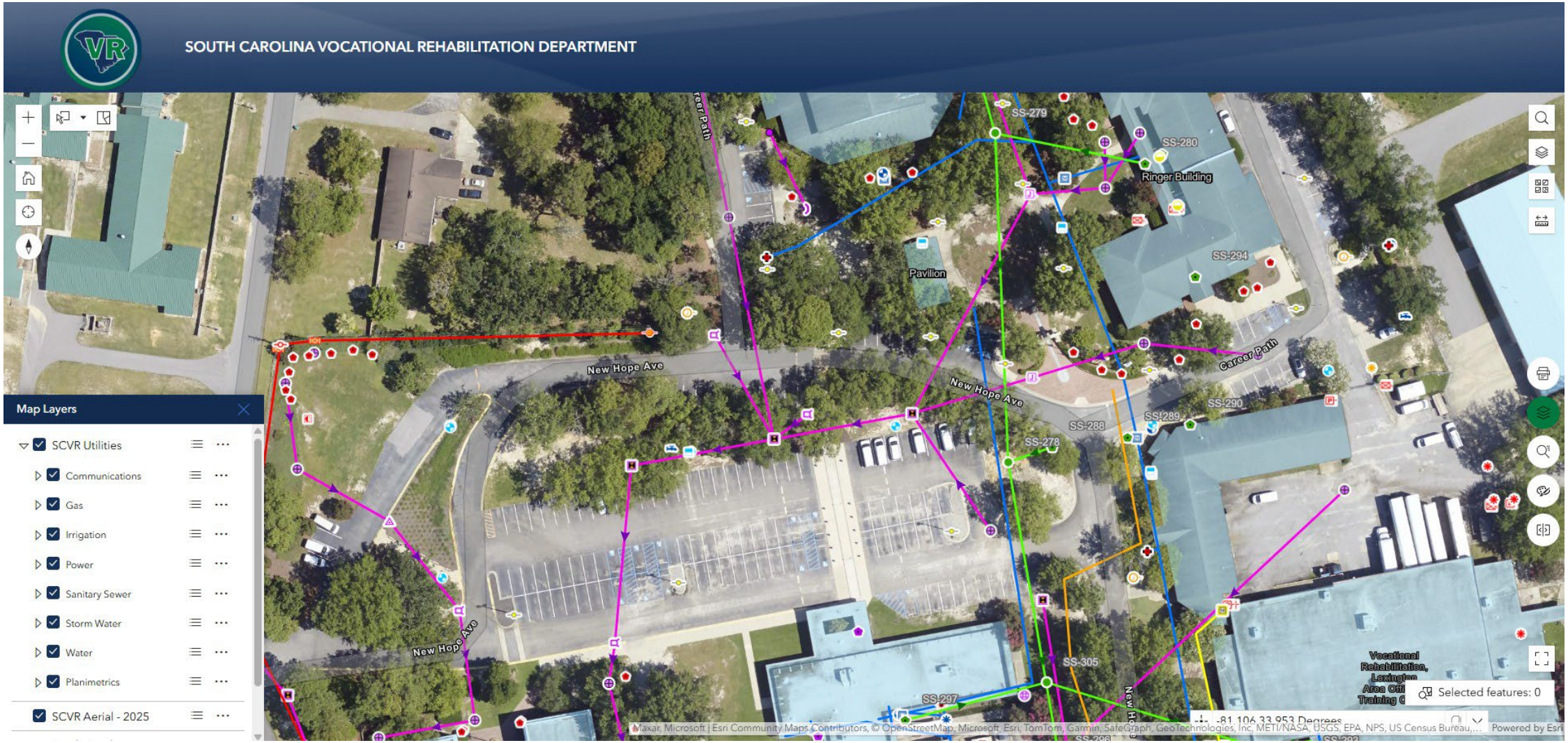
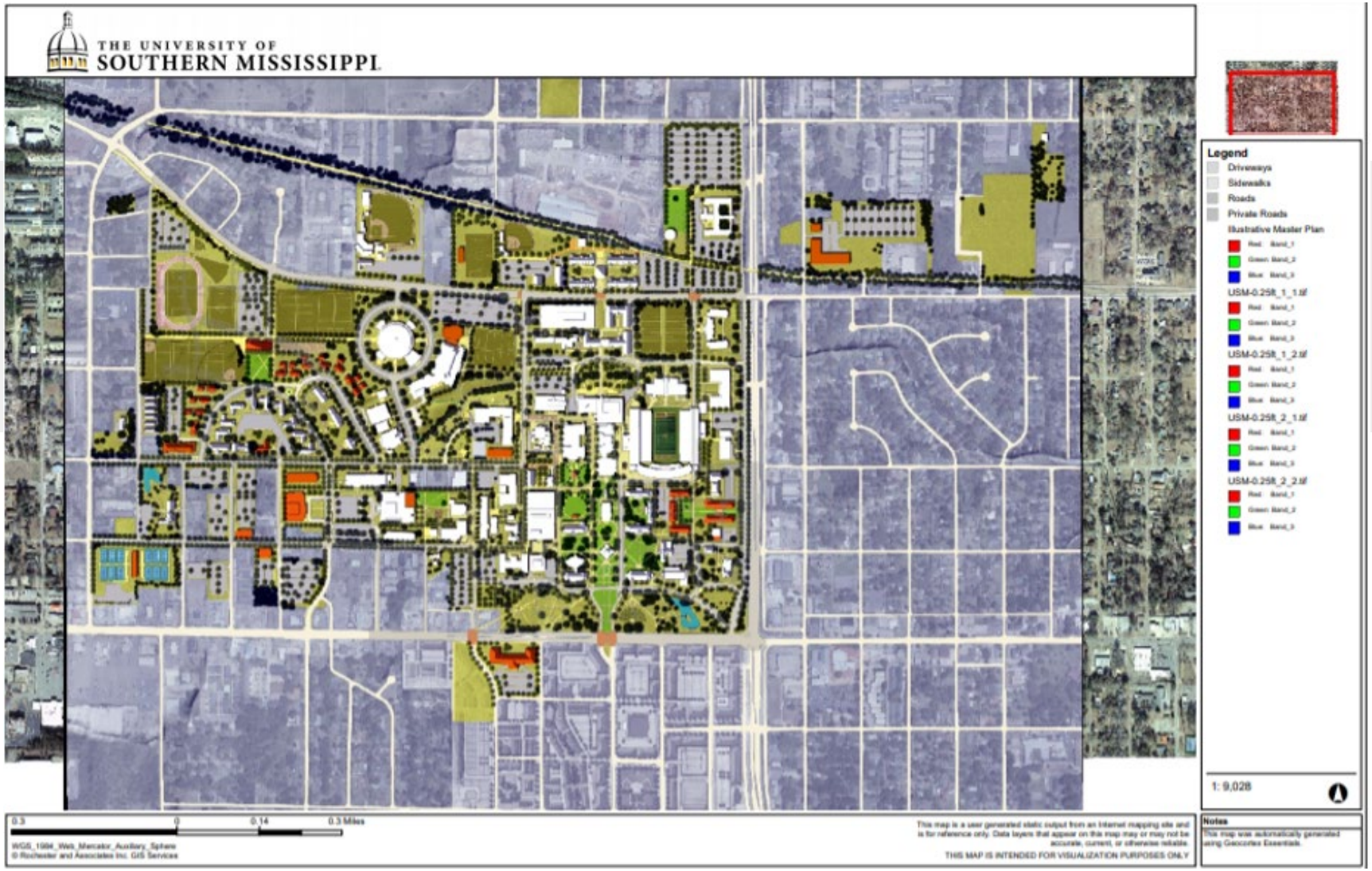
Furman University WebGIS



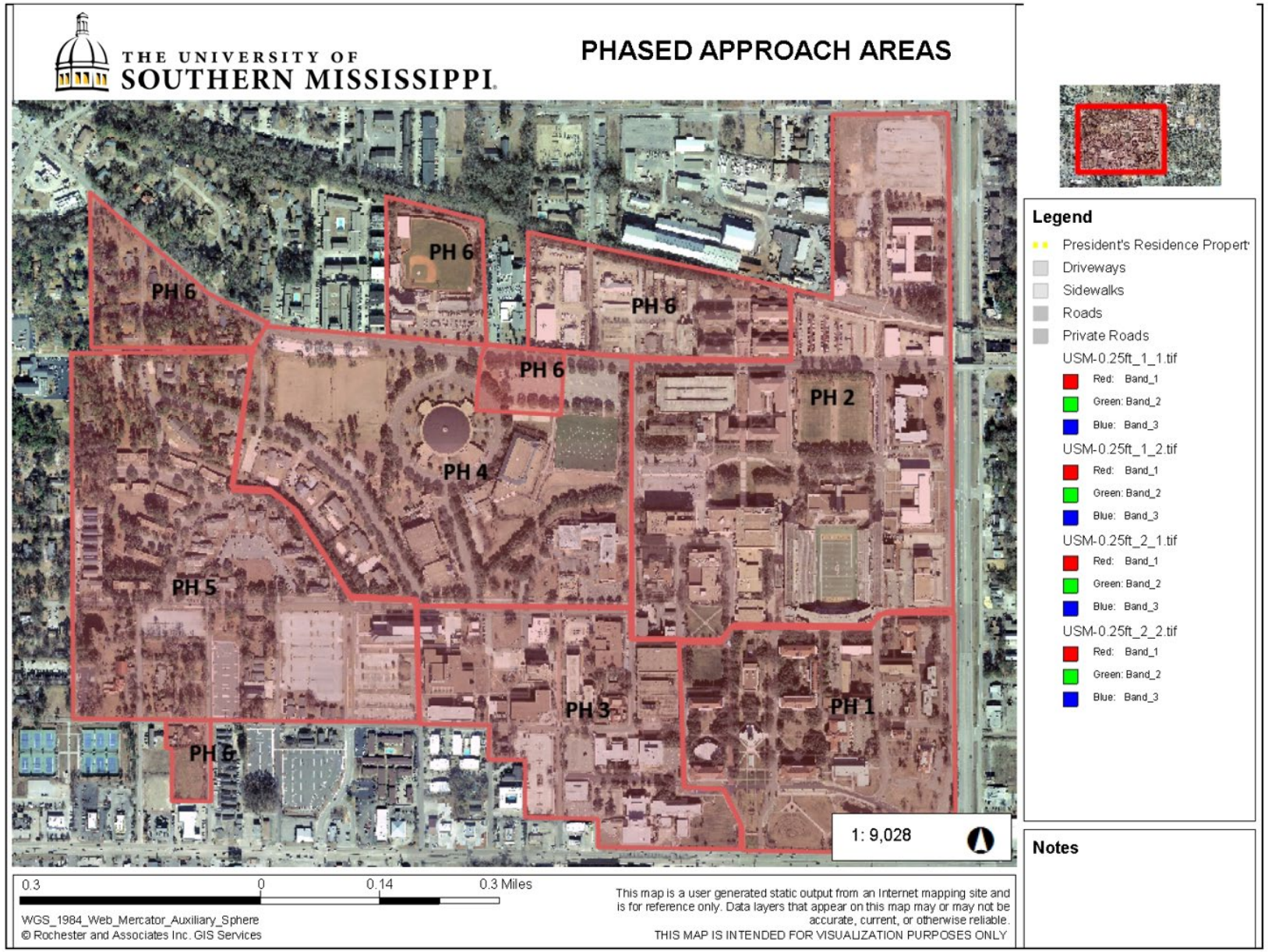
South Carolina Vocational Rehabilitation Department WebGIS



Master Plan


THE UNIVERSITY OF
SOUTHERN MISSISSIPPI
Legend
Driveways
Sidewalks
Roads
Private Roads
Illustrative Master Plan
1: 9,028
Notes

Facility Planning


THE UNIVERSITY OF SOUTHERN MISSISSIPPI
PHASED APPROACH AREAS
PH 6
PH 6
PH 6
PH 6
PH 2
PH 4
PH 5
PH 3
PH 1
PH 6
Legend
President's Residence Propert
Driveways
Sidewalks
Roads
Private Roads
USM-0.25ft_1_1.tif
Red: Band_1
Green: Band_2
Blue: Band_3
USM-0.25ft_1_2.tif
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Red: Band_1
Green: Band_2
Blue: Band_3
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Red: Band_1
Green: Band_2
Blue: Band_3
1: 9,028
Notes
0.3 0 0.14 0.3 Miles
WGS_1984_Web_Mercator_Auxiliary_Sphere
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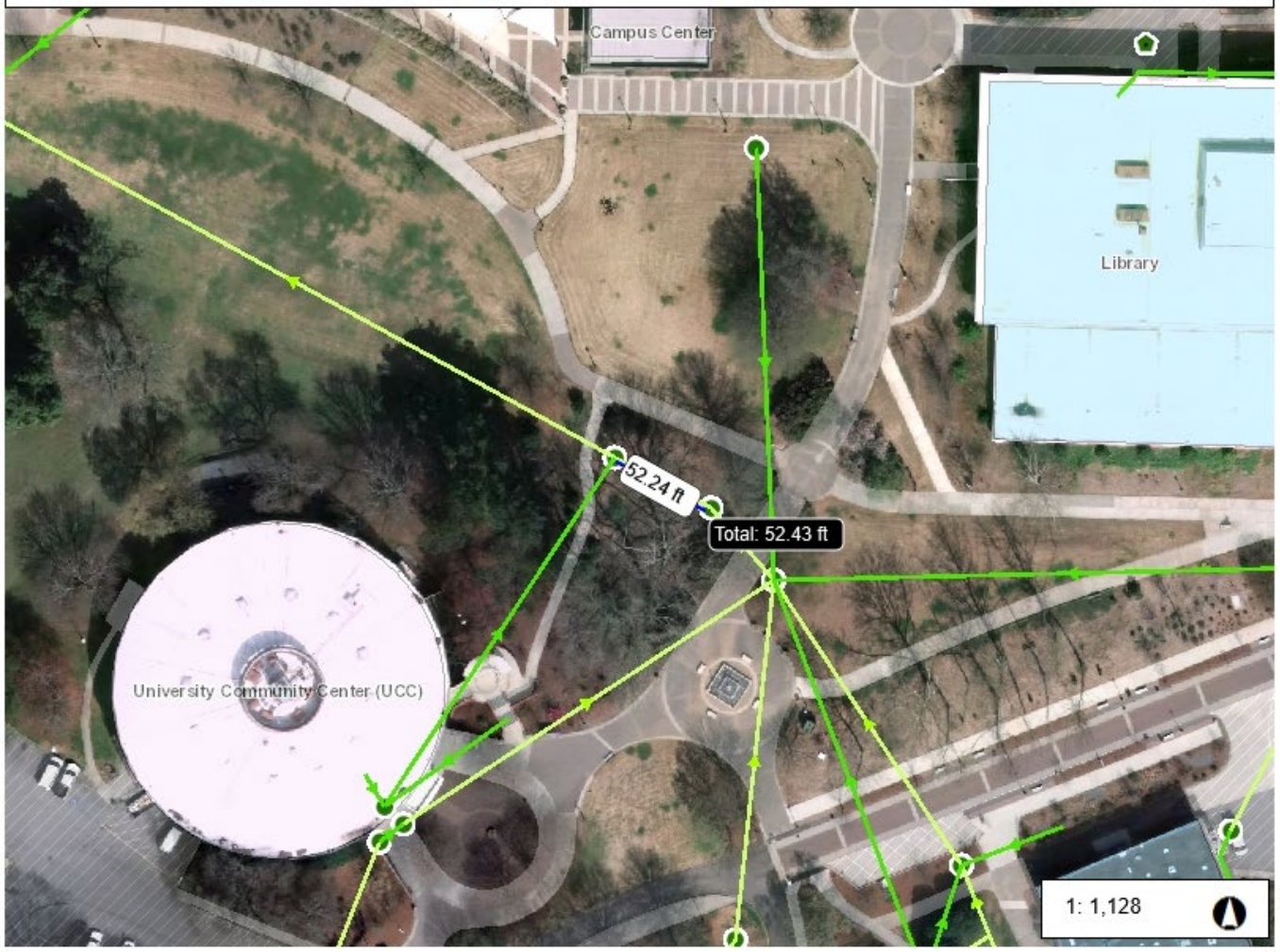
UNIVERSITY of West Georgia

DCCM



Legend

- Sewer Lines
  - Sewer Line
  - Sewer Line With Video
- Sewer Cleanouts
- Sewer Manholes
- Property Boundary
- Buildings
  - Other
  - ACADEMIC
  - ADMINISTRATIVE
  - ATHLETIC/RECREATION
  - AUXILIARY
  - HOUSING
  - INACTIVE
  - STUDENT LIFE
  - SUPPORT
- Sidewalks
- Driveways
- Parking Lots
- Roads
- Streets
- Tennis Courts
- Bleachers
- Track
- Sports Fields
- Streams

Notes

0.0 0 0.02 0.0 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS INTENDED FOR VISUALIZATION PURPOSES ONLY.

Live Demo

GIS, or Geographic Information System, is an accurate mapping tool and simple-to-use online repository that enhances spatial data management. It increases work order efficiency by providing a streamlined platform for organizing and analyzing geographic information.

Questions

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