

CT's Geodata Portal

Exploring and Using the CT Geodata Portal

September 13, 2023



Agenda

Introduction

About the GIS Office

Geodata Portal Overview

Finding Data on the Portal

- **Categorization**

Using data on the Portal

- **APIs**
- **Downloads**

Upcoming News and Data

About the Presenter



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About the GIS Office

GIS Office & Geographic Information Officer (GIO)

OPM's Geographic Information Systems (GIS) Office was established in 2022 following the passage of Public Act 21-2 during the 2021 June Special Session.

It is directed by a Geographic Information Officer (GIO) and resides within the Data and Policy Analytics Unit of OPM.

GIS Office Responsibilities

- **GIS data coordination.** Coordinating the collection, compilation, and dissemination of GIS data across the state, including from and to state agencies, regional councils of governments, municipalities, and other constituencies;
- **Open data.** Managing a publicly accessible geospatial data clearinghouse;
- **Supporting economic development.** Using GIS to support economic development efforts in the state;
- **Outreach & training.** Provide training and outreach on the use of GIS;
- **Orthoimagery.** Administering a statewide orthoimagery and lidar program;
- **Guidance & Standards.** Adopting geospatial data standards, guidelines, and procedures;
- **Data processing.** Performing technical data processing to aggregate and organize existing datasets and create new datasets; and
- **Broadband mapping.** Develop broadband data and mapping in accordance with Public Act 21-159.

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Geodata Portal Overview



CT Geodata Portal

[About](#)

[Data Library](#)

[Partners](#)

CT Geodata Portal

Search or browse GIS data for Connecticut

[New & Noteworthy](#) | [CT at a Glance](#) | [Data Categories](#) | [Partners](#)

Geodata Portal Highlights

<https://geodata.ct.gov>

ArcGIS Hub based GIS Clearinghouse built in collaboration with Esri.

The Geodata Portal shares partner agency data to make it available all in one place.

The site has been live for nearly a year! Updates occur periodically.

Reviewed other states' clearinghouses and synthesized results as part of preliminary preparation work.

How did we launch with so much stuff?

- Prior to the creation of the Geodata Portal, there were several other “authoritative” state sites for GIS data.
 - CT ECO
 - DEEP
 - DOT
 - CT Open Data Portal*
- One of the stated goals and needs of the CT GIS community is to have a centralized place to find geospatial data.
- A plan to aggregate state agency data was needed.
- The CT Open Data Portal was used as a model.



* The Open Data Portal was federating to some of the existing portals, but not all.

Getting Agency Data into the Portal

Challenges to aggregation:

- Inconsistent metadata implementation (some use ISO, FGDC, etc.).
- Agencies sometimes had diverging needs and uses for the data.
- ArcGIS Online orgs needed some preparation and standardization.

Despite these challenges, the key stakeholders involved ensured the success of the effort.

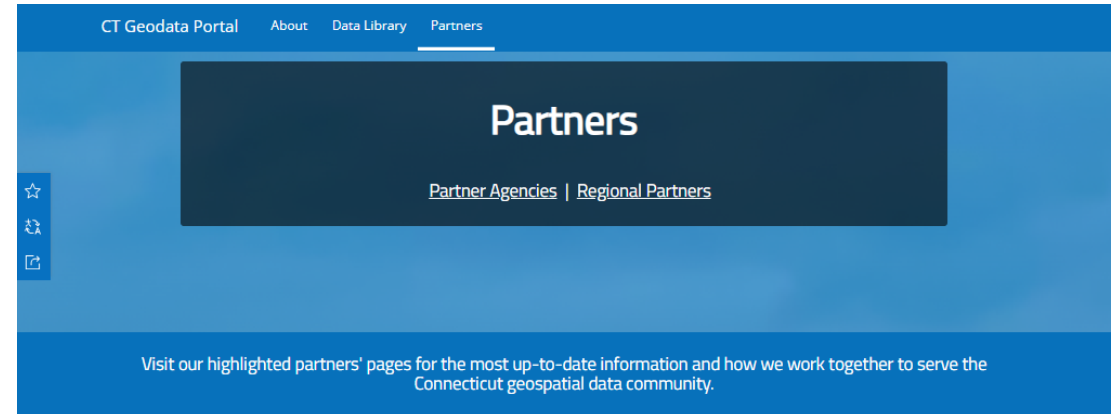
Special thanks to:

- *Greg Ciparelli (DOT)*
- *Stuart DeLand (DEEP)*
- *Emily Wilson (UConn CLEAR)*
- *Pauline Zaldonis (OPM DAPA)*



Partners Page

- A collection of links to the data portal of our data partners.
 - State Agencies
 - UConn
 - Regional Partners / COGs



Highlighted Partners

Explore Connecticut's GIS office highlighted partners' data resources portals.



[DEEP](#)



[DOT](#)



[CT ECO](#)



[CT Open Data](#)

State Agency Partners

See how other Connecticut agencies are using GIS to interpret and visualize data by exploring the highlighted data below.

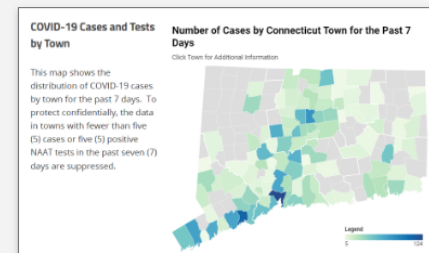
CT Open Data Portal

[Visit the CT Open Data Portal](#)

Launched in 2014, the CT Open Data Portal is the State's repository for tabular data published by state agencies. The Open Data Portal makes data from state agencies publicly available in machine-readable formats to increase government transparency, drive efficiencies, and spark innovation. The Open Data Portal is administered by the Data and Policy Analytics team in the Office of Policy and Management and works in tandem with the CT Geodata Portal to make state data available as open data.

Contact:
 Pauline Zaldonis
 Open Data Coordinator
Pauline.Zaldonis@ct.gov

[Explore Data](#)



Featured Resource

[Connecticut COVID-19 Update](#)


View resource updated daily with data from the CT Department of Public Health on cases, tests, vaccinations, hospitalizations, & deaths from COVID-19.

Developer and Advanced User Resources

- API resource links
- Other spatial technology resource links
- More resources to come!


CT Geodata Portal [About](#) [Data Library](#) [Partners](#)

Developer Resources




[ArcGIS REST API](#)

ArcGIS REST APIs documentation. Learn how to use ArcGIS location services and ArcGIS Enterprise services




[Python API](#)

Explore the API to learn how to write scripts to perform specific tasks such as mapping, querying, analysis, geocoding, routing, portal administration, and more.



[API for JavaScript](#)


View tutorials, samples, blog, showcase, and documentation.



[Esri Developer Site](#)


View developer guides and resources.

Other Resources




[ArcGIS & Power BI](#)

Bring geographic data created in your organization into Power BI and integrate it with tabular or any other business data.



[ArcGIS & R](#)

R ArcGIS Bridge offers you the ability to tap directly into R from your current ArcGIS Pro project, allowing you to meet your analysis needs as they arise



[Spatial Data in Tableau](#)

This topic describes how to connect Tableau to Shapefiles, MapInfo tables, KML (Keyhole Markup Language) files, TopoJSON files, GeoJSON files, and Esri File Geodatabases.



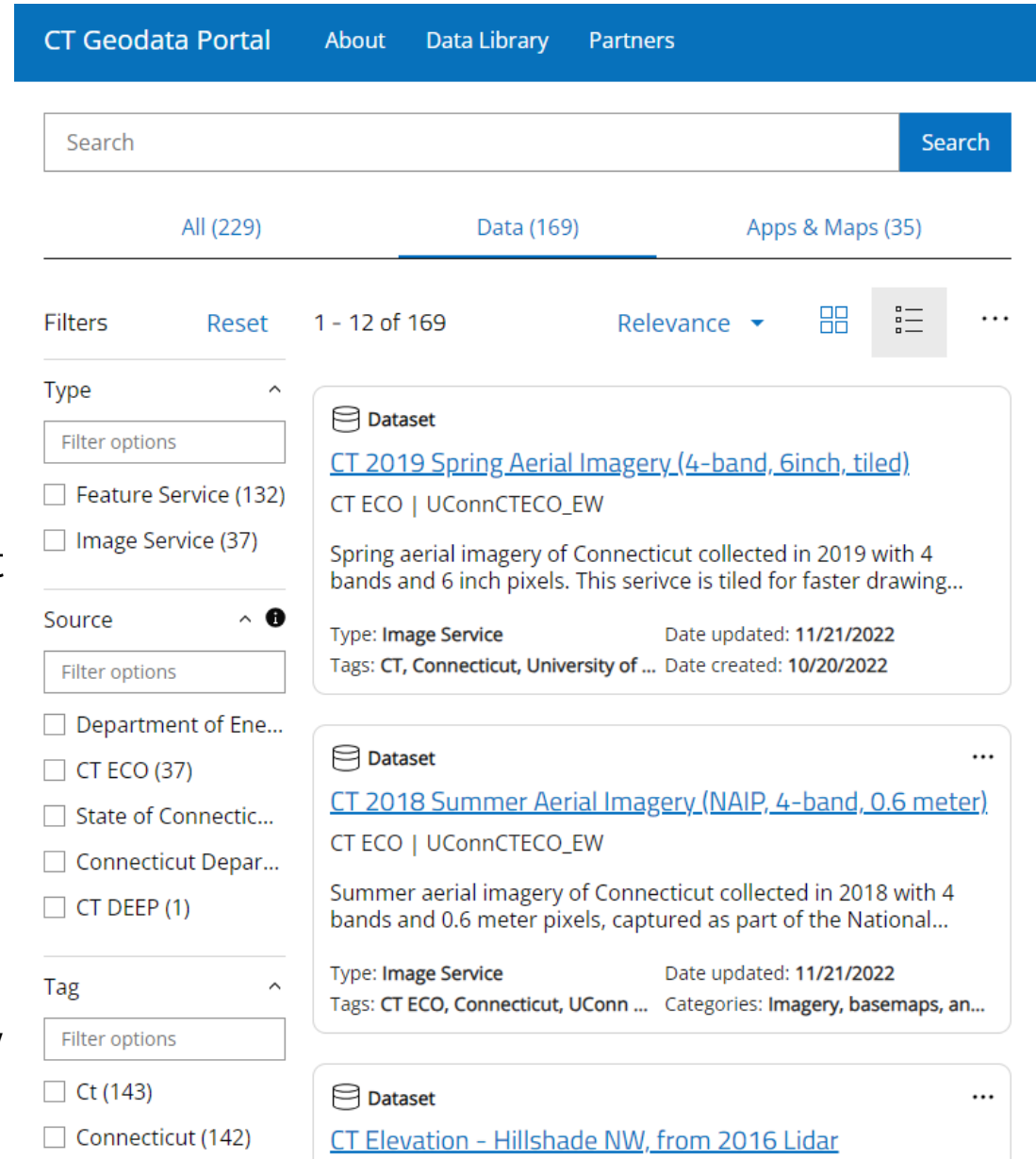
Finding Data on the Portal

Making Data on the Portal Easier to Find

Verified AGOL orgs are able to mark data as authoritative, making the data owner labels easier to understand.

Good Data Governance facilitates the following:

- Browsing data by category, agency, and type of asset (i.e. dataset, map, chart, etc.).
 - Filtering by tags is very useful, but also using systemwide categories can help enable other functionality.
 - Ensuring all datasets have clearly marked licensing terms allows end-users to understand how and when they can use the data.
 - Full data descriptions allow users to understand how the dataset was created, which can help clarify what assumptions were made in its creation.



The screenshot shows the CT Geodata Portal interface. At the top, there is a navigation bar with links for "CT Geodata Portal", "About", "Data Library", and "Partners". Below this is a search bar with the text "Search" and a "Search" button. Underneath the search bar, there are tabs for "All (229)", "Data (169)", and "Apps & Maps (35)".

On the left side, there are filter sections:

- Type:** Filter options, Feature Service (132), Image Service (37)
- Source:** Filter options, Department of Ene..., CT ECO (37), State of Connectic..., Connecticut Depar..., CT DEEP (1)
- Tag:** Filter options, Ct (143), Connecticut (142)

The main content area shows a list of datasets. The first two are:

- Dataset:** [CT 2019 Spring Aerial Imagery \(4-band, 6inch, tiled\)](#). CT ECO | UConnCTECO_EW. Description: Spring aerial imagery of Connecticut collected in 2019 with 4 bands and 6 inch pixels. This service is tiled for faster drawing... Type: Image Service. Date updated: 11/21/2022. Tags: CT, Connecticut, University of ... Date created: 10/20/2022
- Dataset:** [CT 2018 Summer Aerial Imagery \(NAIP, 4-band, 0.6 meter\)](#). CT ECO | UConnCTECO_EW. Description: Summer aerial imagery of Connecticut collected in 2018 with 4 bands and 0.6 meter pixels, captured as part of the National... Type: Image Service. Date updated: 11/21/2022. Tags: CT ECO, Connecticut, UConn ... Categories: Imagery, basemaps, an...

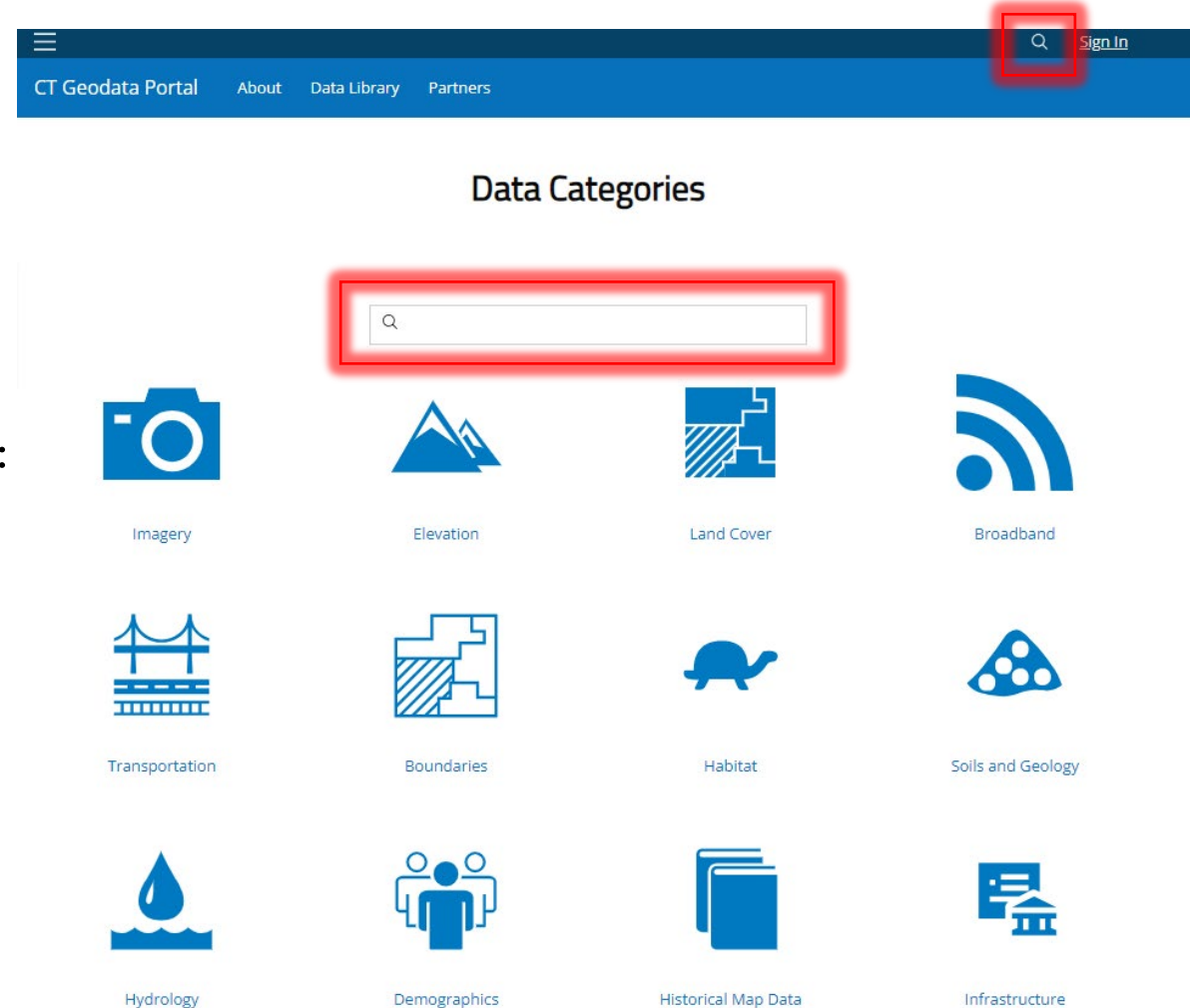
The third dataset is partially visible: **Dataset:** [CT Elevation - Hillshade NW, from 2016 Lidar](#)

Categorization Enables Easier Data Access

By using the AGOL categories, we were able to group data by topic to make it easier to find.

This is some of the homepage behavior we enabled:

- Select one of the data categories on the homepage for a filtered view of datasets and applications related to that topic.
- Search for data using the search bar on the top of the site or on the Data Categories section of the homepage.
- Search by dataset name or keyword.
- Searches content titles, descriptions, and tags.



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Using Data on the Portal

How to use data on the Portal

Data Overview Page

- This page provides an overview of a dataset and allows for simple data exploration.
- View Full Details for a more complete view of the metadata and download/API options.
- Select Download to view simplified downloading options.

The screenshot displays the 'CT Geodata Portal' interface for the dataset 'CT Broadband Availability and Adoption Data by Town'. The page shows a map of Connecticut with 169 records highlighted in blue. The sidebar on the left provides metadata: 'Private Member', 'State of Connecticut', 'Summary' (This layer includes CT broadband availability and adoption data at the town level.), 'View Full Details' button, 'Download' button, and 'Details' section including 'Dataset: Feature Layer', 'November 17, 2022 Info Updated', 'January 26, 2023 Data Updated', 'November 10, 2022 Published Date', and '169 Records View data table'. A 'I want to use this' button is at the bottom left. On the right, a 'I want to...' menu offers actions: 'Create a Map' (Start a map with this data), 'Create a Story' (Open in ArcGIS StoryMaps), 'View API Resources' (Try out the API Explorer), 'View Data Source' (Select to open in a new tab), 'View All Metadata' (Select to open in a new tab), and 'Open in ArcGIS Online' (Select to open in a new tab). The footer includes 'Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS' and 'Powered by Esri'.

The background of the slide is a dark blue color. On the left side, there is a white line graphic consisting of a vertical line and a series of wavy, concentric lines that resemble topographic map contour lines. The text is centered in the right half of the slide.

GIS Office Updates and Coming Soon

GIS Office Activities and Updates

NSGIC Geospatial Maturity Assessment

CT GIS Strategic Plan

Broadband Mapping (broadbandmaps.ct.gov)

Parcel Data Collection and Aggregation

Statewide Addressing and Geocoding

Aerial Imagery and Elevation Data Acquisition

NSGIC Geospatial Maturity Assessment (GMA)

GEOSPATIAL MATURITY ASSESSMENT 2023

Connecticut Report Card

Overall Grade: B+

COORDINATION	GRADE: A
STATE-LED THEMES	
STATE-LED THEMES	GRADE
Address	C+
Cadastre	A
Elevation	A-
Orthoimagery Leaf-Off	A
Transportation	A
NG9-1-1	A
FEDERAL-LED THEMES	
FEDERAL-LED THEMES	GRADE
Geodetic Control	C-
Government Units	A
Orthoimagery Leaf-On	C+

METRICS:

A - Superior C - Average F - Failure
 B - Above average D - Below average N/A - Not Applicable

The National States Geographic Information Council Geospatial Maturity Assessment provides NSGIC members and other partners with a summary of geospatial initiatives, capabilities, and issues within and across state governments. The NSGIC GMA now produce report cards for each state on central data themes and coordination topics. The assessment is performed every two years.

GIS Strategic Plan

Updated Project Plan and Calendar

	Month	Item	Notes
Data Collection	April 2023	Create and vet questionnaires Background and review of literature Project and communication plan	<i>Completed</i>
	May 2023	Interviews and Surveys	<i>Completed</i>
	June 2023	Initial data collection analysis	<i>Completed</i>
	July 2023	Summary data collection report and analysis	<i>Completed</i>
Strategic Plan.	August 2023	Strategic plan planning (<i>stakeholders</i>) Strategic plan draft	<i>Locations identified</i> <i>In process</i>
	Sept. 2023	Stakeholder outreach (3 locations) Implementation plan outreach (<i>stakeholders</i>) Data Collection Plan	Vision and Mission statements
	Oct. 2023	Implementation and Strategic Plans draft	After outreach other review
Implementation Plan.	Nov. 2023	Present plan at GIS Day	
	Dec. 2023	Final reports and output completed	

GIS Strategic Plan Stakeholder Event

Public Event with the CT GIS Office: A Workshop to Prioritize the Connecticut Geospatial Strategic Plan

You are invited to a public stakeholder event (1-2:30 pm on Tuesday, Sept. 19th) at the Farmington Library (6 Monteith Dr, Farmington, CT) to help determine priorities for the next five years regarding GIS data, geospatial technologies, and mapping.

What is the goal?

GIS is all about the science of where. The [CT GIS Office](#) is responsible for coordinating and managing GIS data acquisition and geospatial/location data policy for the State of CT, Office of Policy and Management. Our goal is to support all CT stakeholders including municipalities, State Agencies, and non-profits with high quality data, standards, and effective policies.

The CT GIS Office needs your participation at a **Public Outreach Meeting** to set priorities for Geographic Information Systems (GIS) data, mapping, and geospatial policies over the next five years in support of our Geospatial Strategic Planning process. You will help us determine what is important.

For information contact carl.zimmerman@ct.gov

Broadband Mapping

Parcel and CAMA Processing

Addressing and Geocoding

- Fourth data collection from ISPs underway to serve as a basis for the BEAD Initial Proposal. New public maps by Dec 1.
- Statewide parcel layer complete, completing link field to CAMA tables and domain verification. Targeting early November for publication.
- Address verification process started with additional data sources pending. Targeting EOY for geocoder and dataset publication.

Aerial Imagery Data Acquisition

Two imagery and LiDAR captures in Spring 2023 and Spring 2026.

Dewberry selected as the vendor, aerial acquisition complete, processing now beginning.

Products purchased for both captures.

3" 4-band imagery

QL1 LiDAR data (20ppsm coastal, 15ppsm inland)

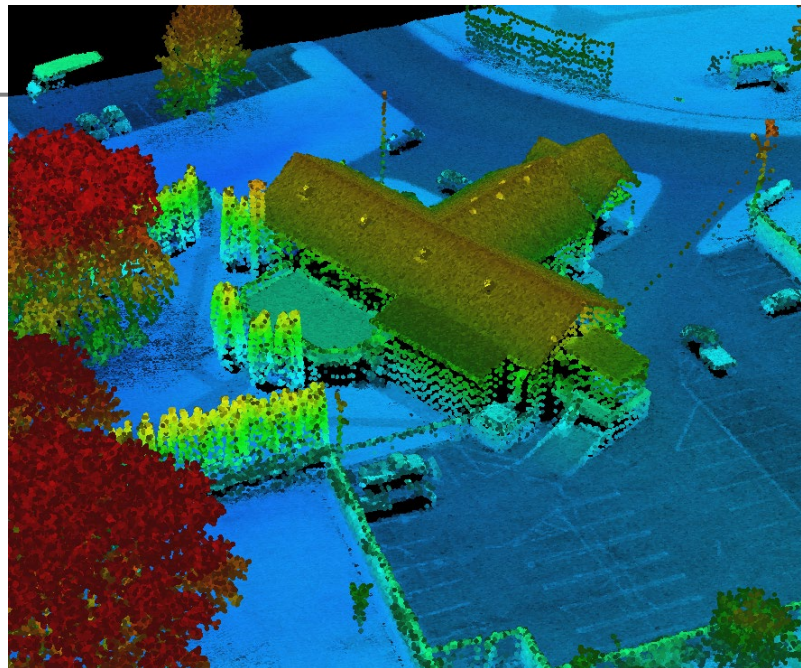
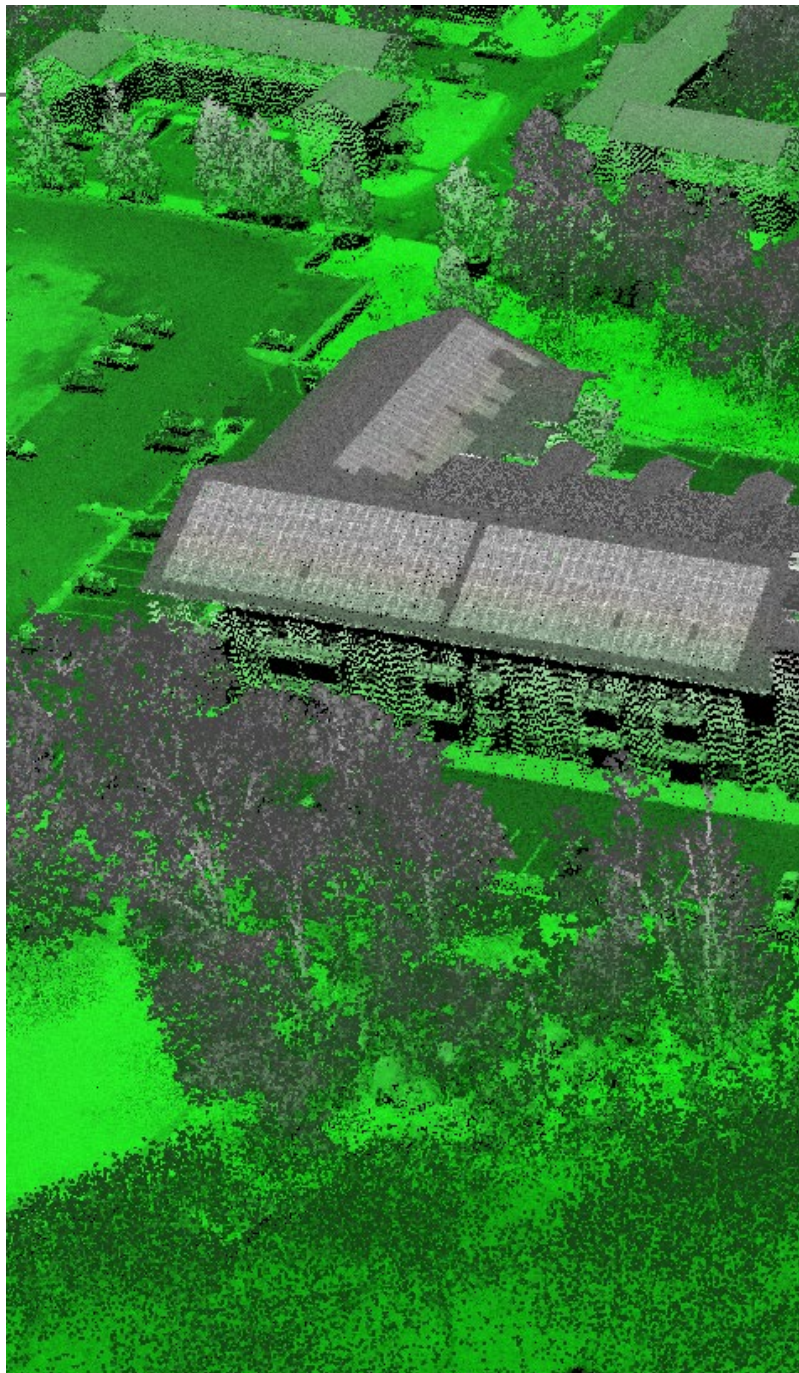
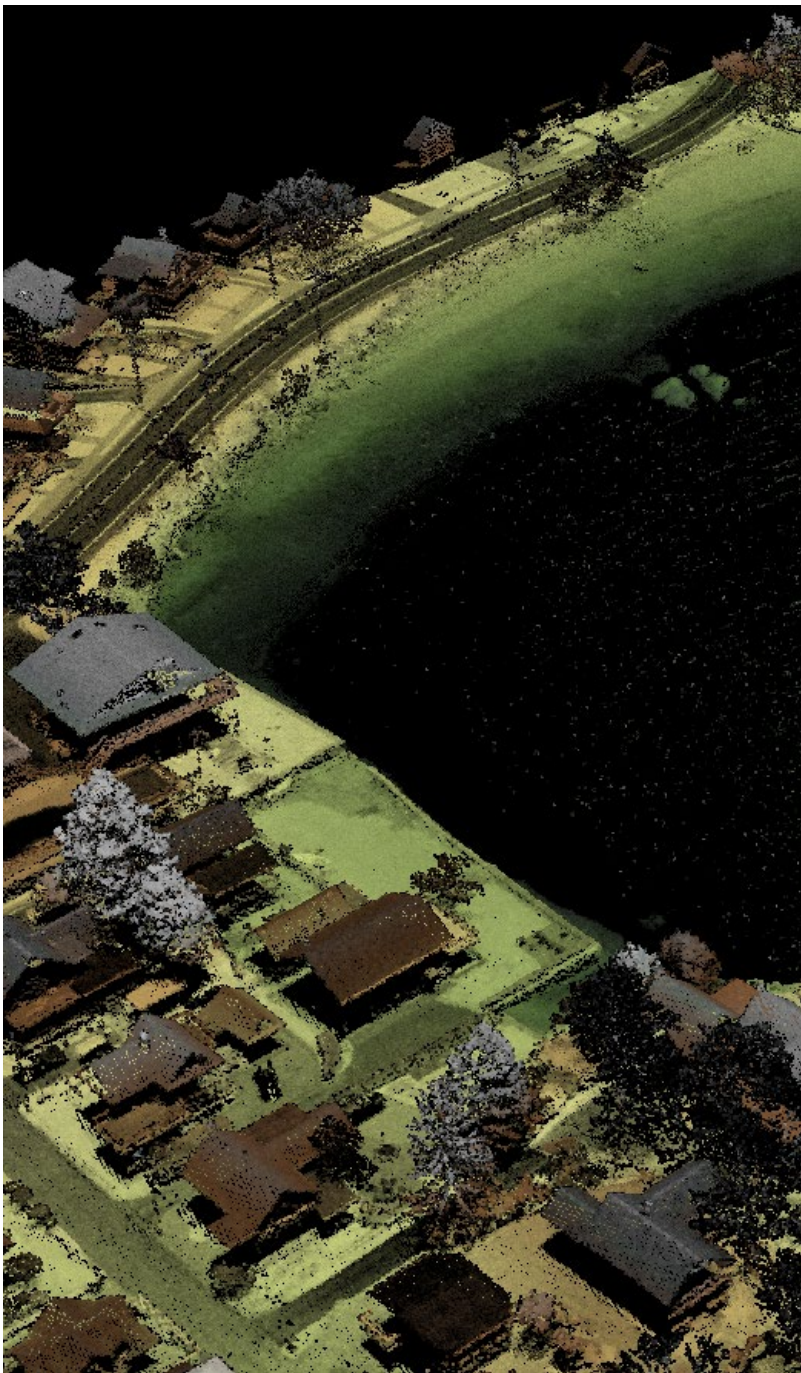
DEM

Contours

Building Footprints

3D Terrain and (LoD2) Building Models







There is more to come!

Any Questions?