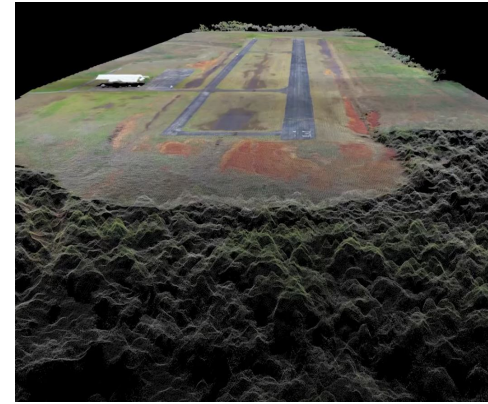




U.S. Department of Transportation
Federal Highway Administration



Alabama Department of Transportation

J.D. D'Arville
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ALDOT UAS Assets

- DJI Phantom 4
- DJI Phantom 4 Pro
- DJI Mavic 2 Pro
- DJI Phantom 4 RTK
- DJI Goggles
- Sensefly Ebee
- Sensefly Albris
- Parrot ANAFI
- Plum Case
- UAS Command Center



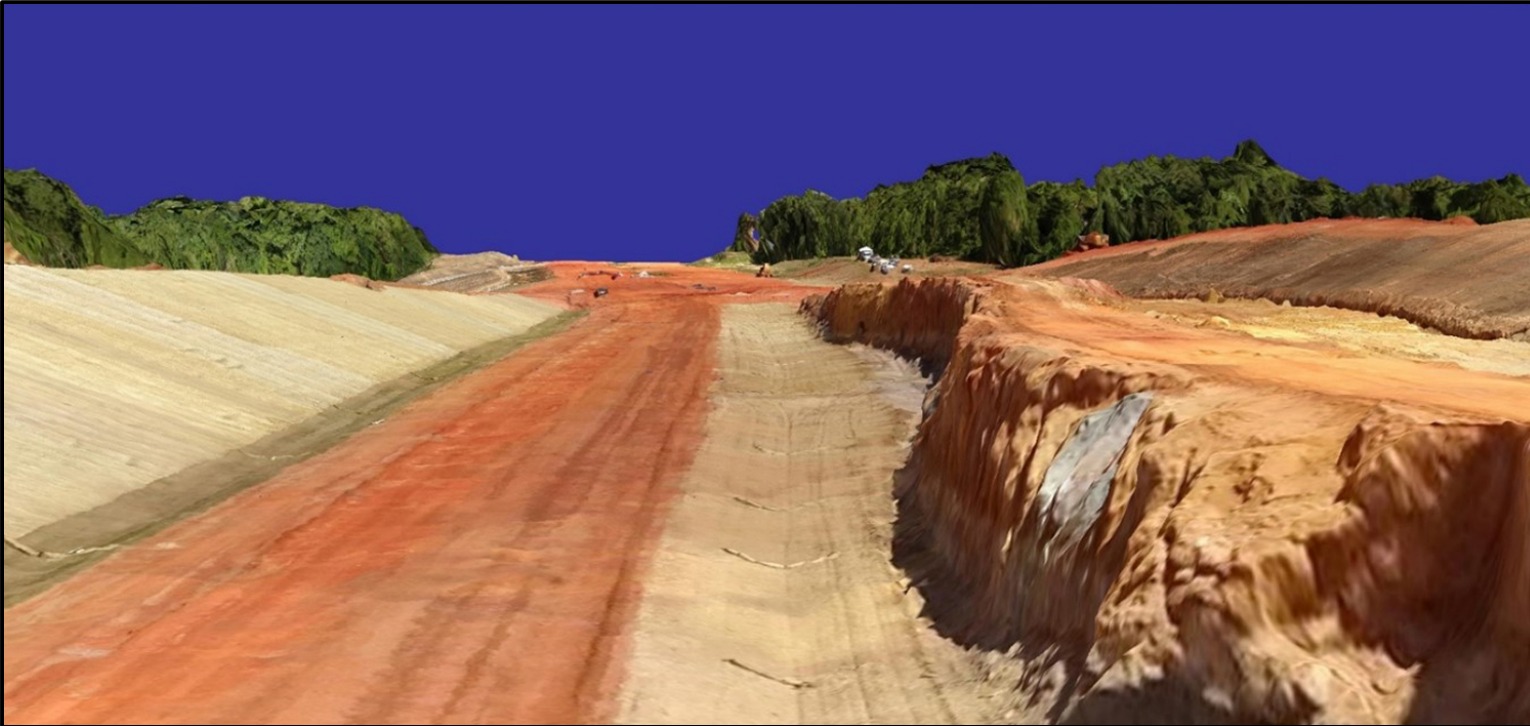
Software & Apps

Pre-Flight & Missions

- Survey 123
- Emotion 3: Ebee and Albris
- DJI Go/GS Pro: DJI Drones
- Pix4D Capture: DJI Drones & ANAFI
- Drone Deploy: DJI P4 & Mavic 2 Pro

Post Processing

- Drone Deploy
- Context Capture
- Pix4D Mapper Pro
- Virtual Processing Farm



DroneDeploy

← → ↺ dronedeploy.com/app2/sites/5d7138d1512443832d152c50/maps/5ec80a6a8ab3c837ad583338/annotations/5ec832891fcaea343c565317

⚙ 🔍 ☆ 📄 ⚙ M ⋮

Southeast Region > Union Springs Stockpile

FLY UPLOAD EXPLORE REPORT

Share ⚙

← Edit

Title

Class 1 Rip Rap

🗑

May 22, 2020

Area

1211 ft²

Cut

51.5 y³

Fill

-0.8 y³

Volume

50.7 y³

Material

Class 1 Rip Rap

▼

Surface

Digital Terrain Model

▼

Base Plane

Linear fit

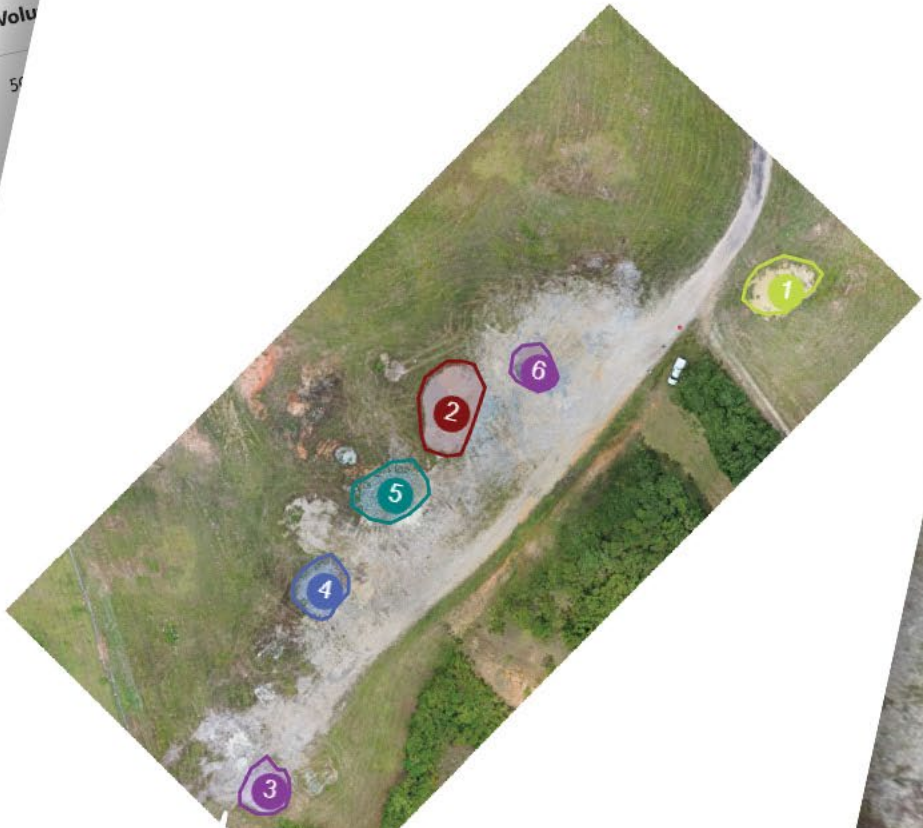
▼

Annotation Report

Union Springs Stockpile



Label	Title	Area
1	#57 Stone	1642 ft2
2	#6 Granite	2645 ft2
3	#76 Granite	1014 ft2
4	Class 1 Rip Rap	1211 ft2
5	Class 2 Rip Rap	1656 ft2
6	Crusher-run	893 ft2

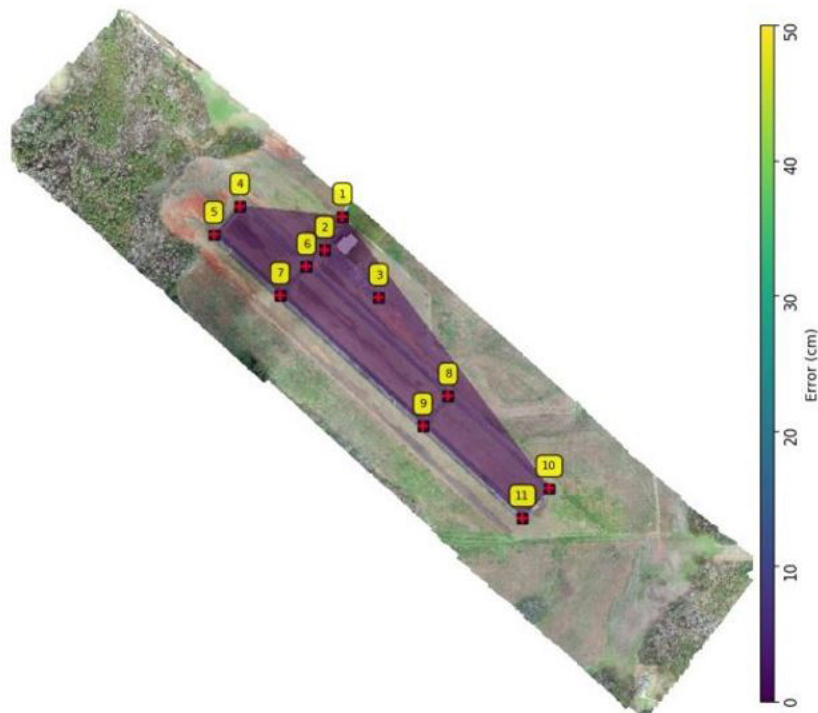


Have a conversation about this annotation with DroneDeploy users you share this map with.

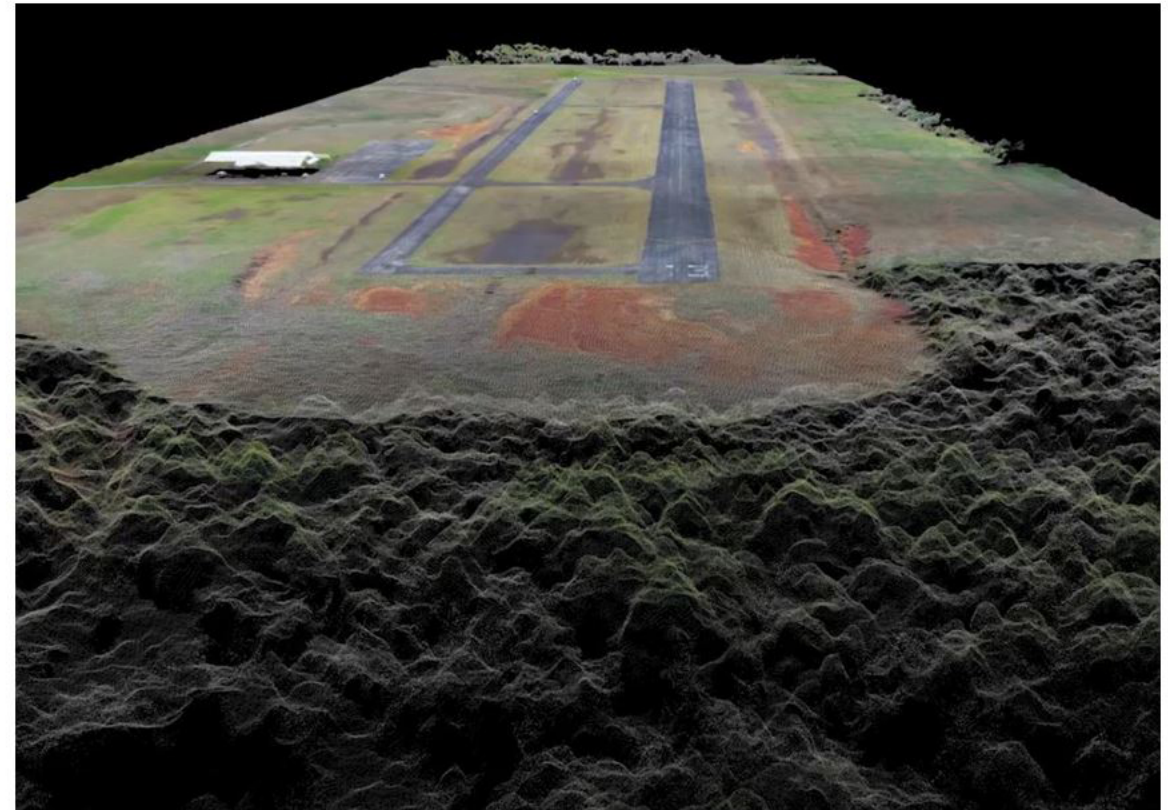
Union Springs Stock Piles

Airports

Testing UAS and Mobile Scan Data for Clear Zones and Pavement Conditions



Visualisation of the expected absolute position error within the checkpoint area.



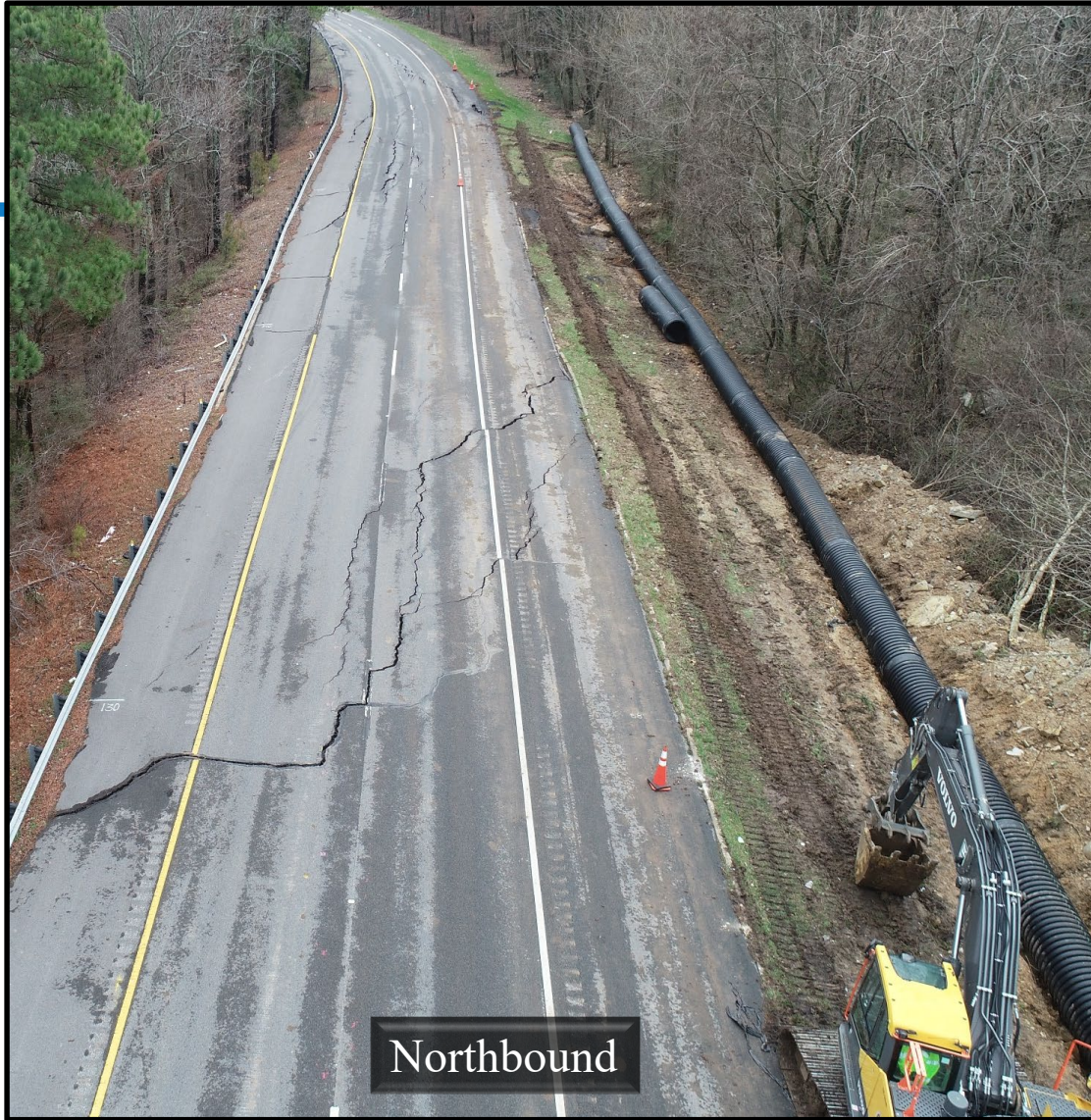


State Route 145 Waxahatchee Creek

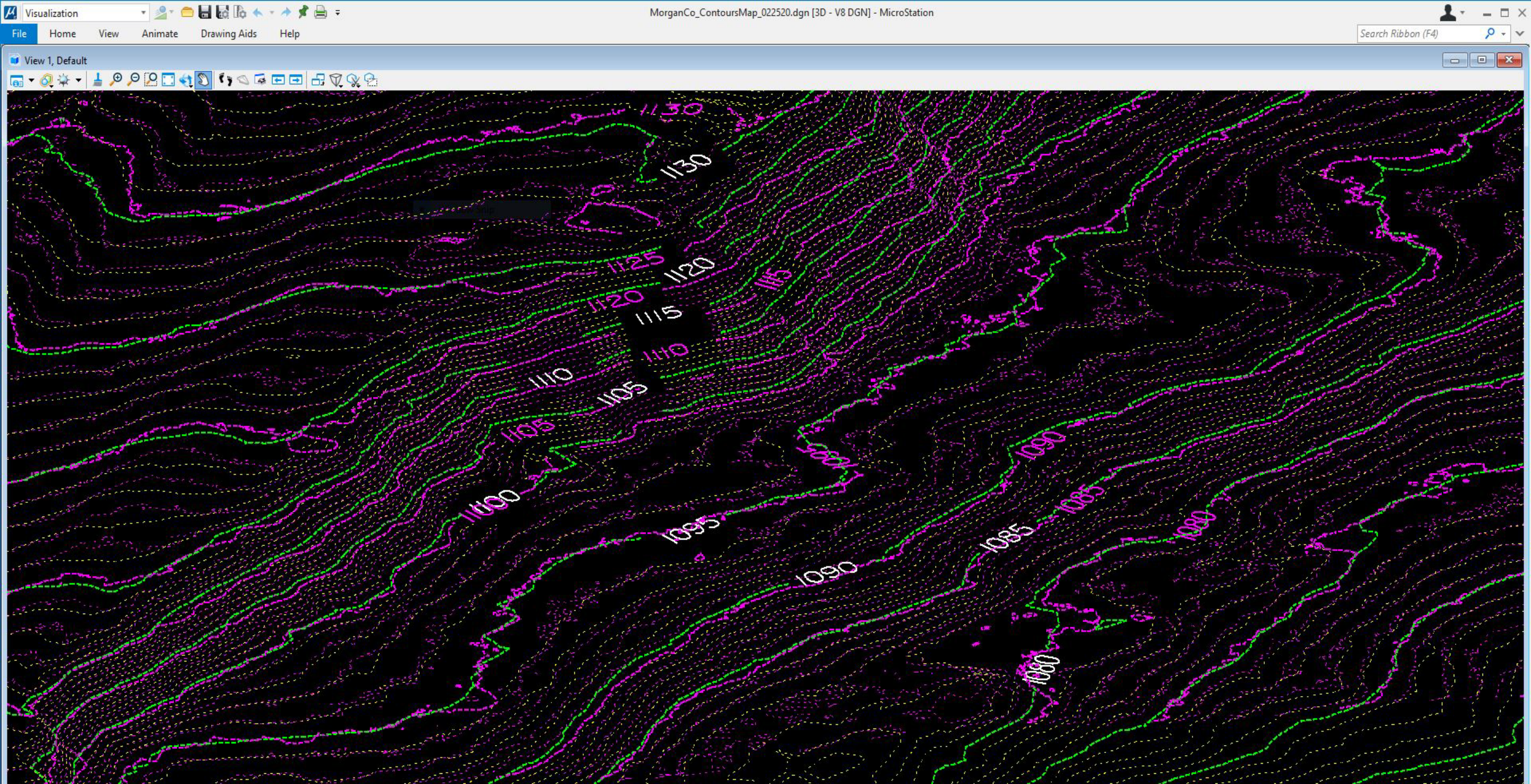


Dunlap Drive, Pinto Pass





Lacey's Spring, US 231



Aerial LIDAR vs Drone LIDAR



360 Pano



Ortho



Photo Plan

15 Minutes to Plan Flight, and 40 Minutes to Fly the Entire Mission

Drone Deploy Flight Planning



1x 1920x1080

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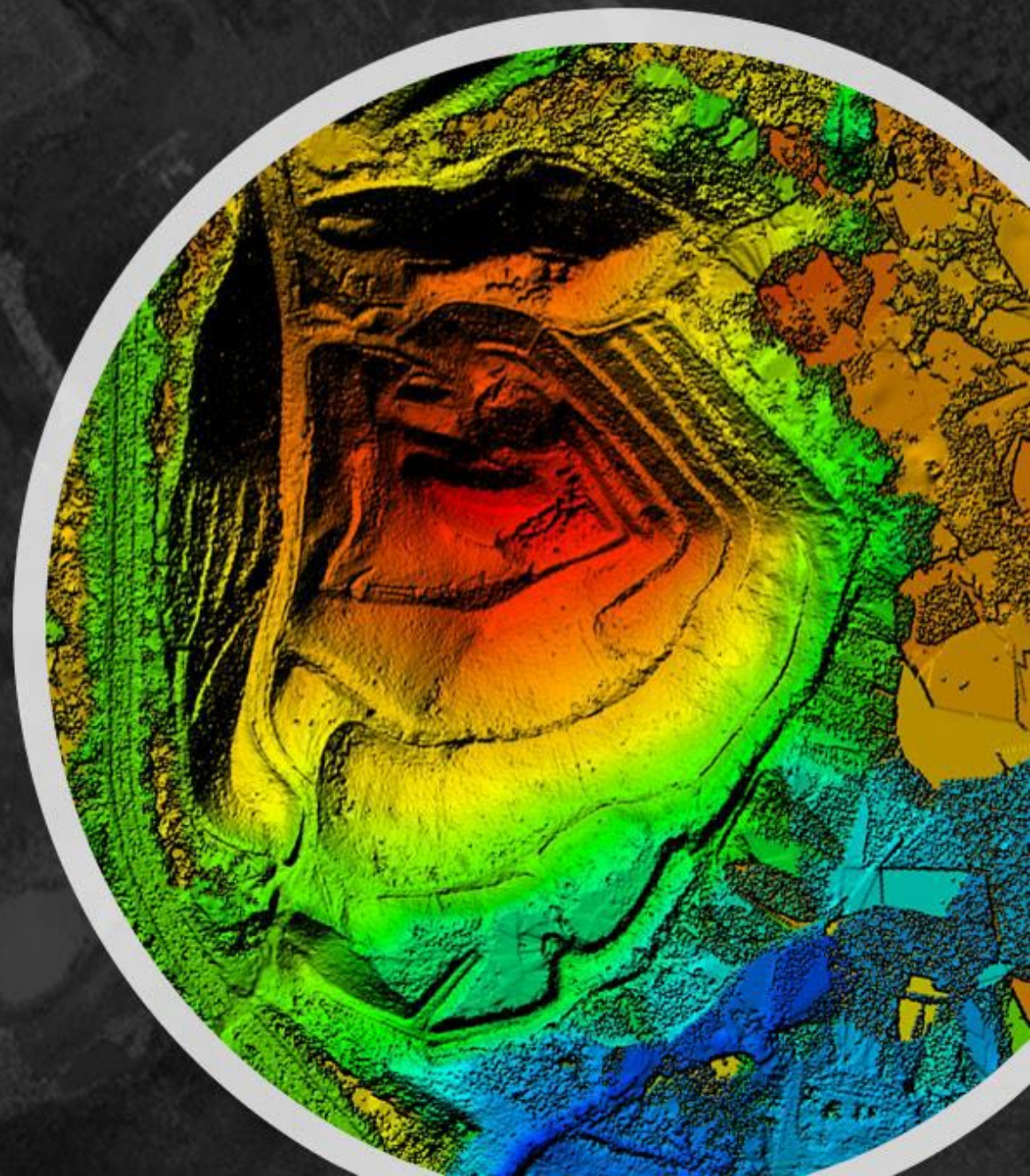


September 2019 – Present

1100 Drone Deploy Flights

300 DJI, GS Pro, Pix4D Capture Flights

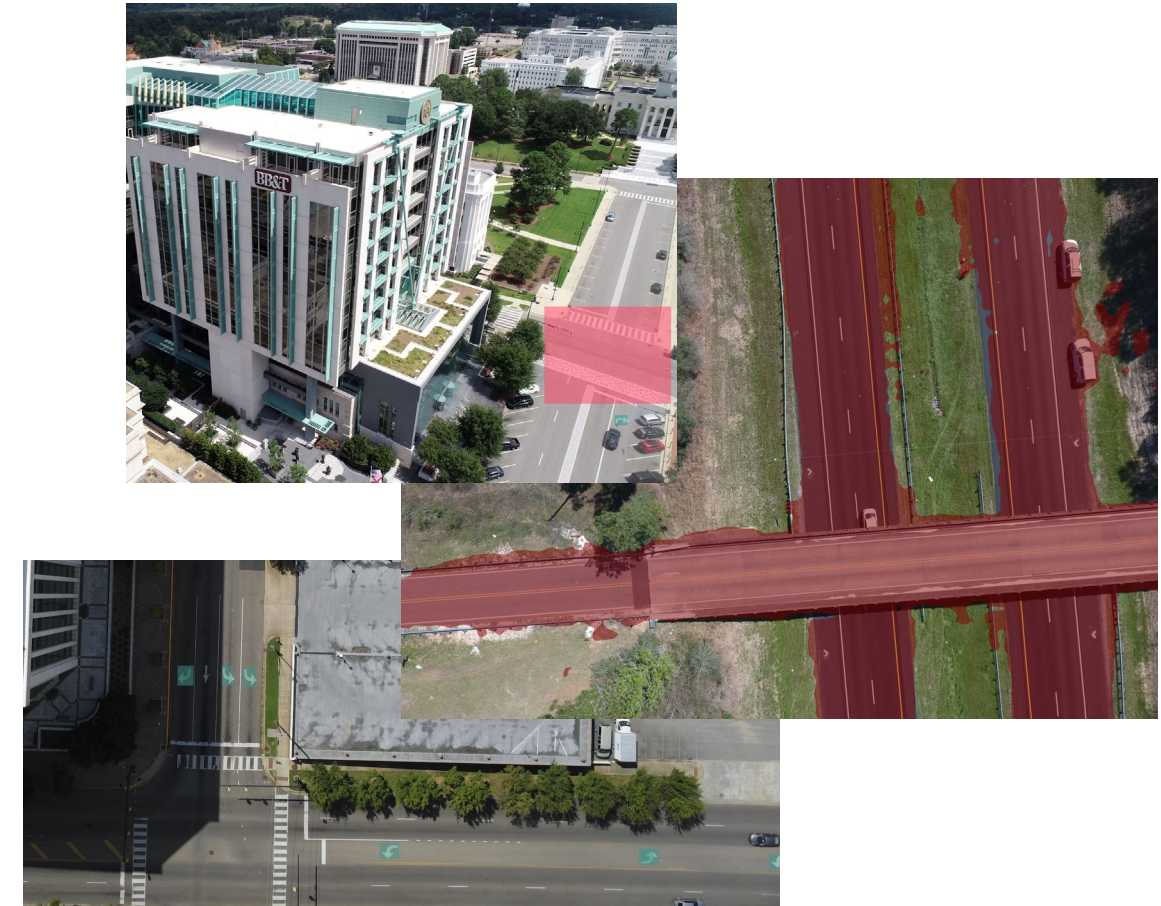
- Construction Inspection/Progress
- Videos
- Orthos
- Earthwork Volumes
- Point Cloud Data
- Emergency/Disaster
- 3D Reality Meshes
- Bridge & Structure Inspections
- Photography/360 Panos
- Artificial Intelligence



Developing AI/ML to automatically catalog, index, and extract data from UAS imagery



Web interface to browse and search all UAS image data available to others within the Department.



Developing image classification models to detect assets within the imagery and index. Intersections, pavement, and arrows shown here. Exploring bridge inspection as well.



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