DroneDeploy

Midlands Highway Alliance Plus

Digital Working Group Meeting, 19th March 2026

Speaker

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Agenda:

1. **The Now:**
   The UK Drone Landscape in 2026

2. **The How:**
   Leveraging Reality Capture for Complex Projects

3. **The Future:**
   Automation, Data, and AI

The Now: Current Legislation & Regulatory Shifts in the UK

RIS3 Shift

Digital Roads

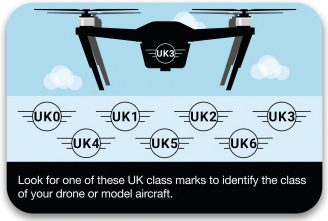
Safety & Carbon

The Now: UK Drones Landscape in 2026

How the 2026 rules specifically benefit civil engineering and highway maintenance.

1. Reduced Disruption

- *Rule:* UK2 Class + 5m proximity limit.
- **Benefit:** Perform bridge and gantry inspections over live traffic. No more costly lane closures or traffic management setups.



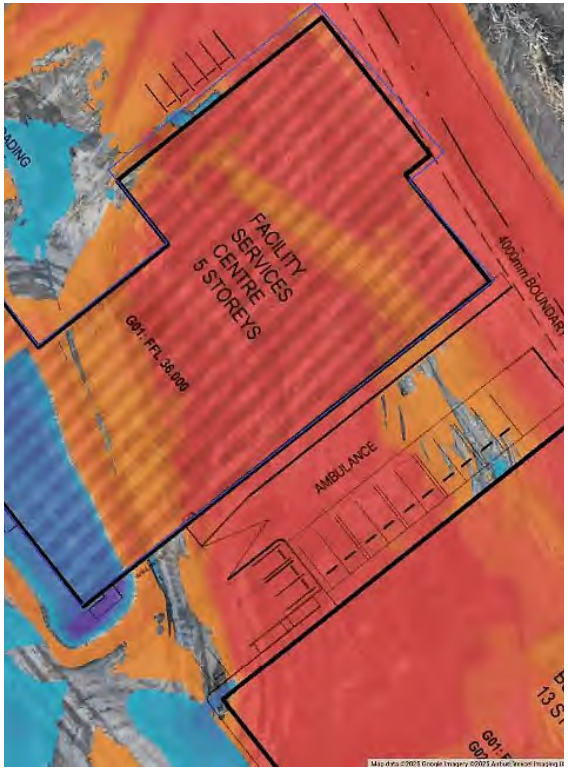
2. Expanded Range & Time

- *Rule:* Streamlined BVLOS (Beyond Visual Line of Sight) and mandatory night lighting.
- **Benefit:** Survey miles of track/road in one flight and perform thermal concrete-curing checks 24/7.

3. Rapid Deployment

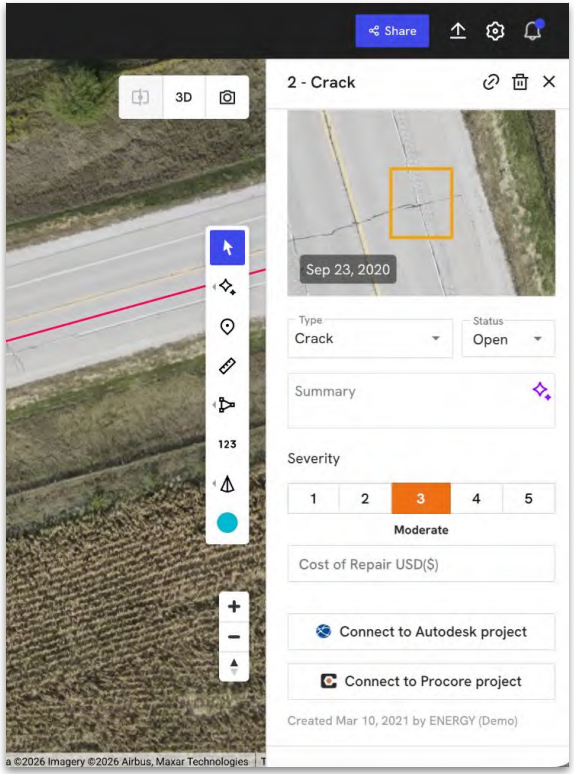
- *Rule:* 100g "Micro-drone" registration.
- **Benefit:** Integrate ultra-light drones into daily Safety Management Systems (SMS) for instant, ad-hoc site inspections.

The How: Leveraging Reality Capture for Complex Projects



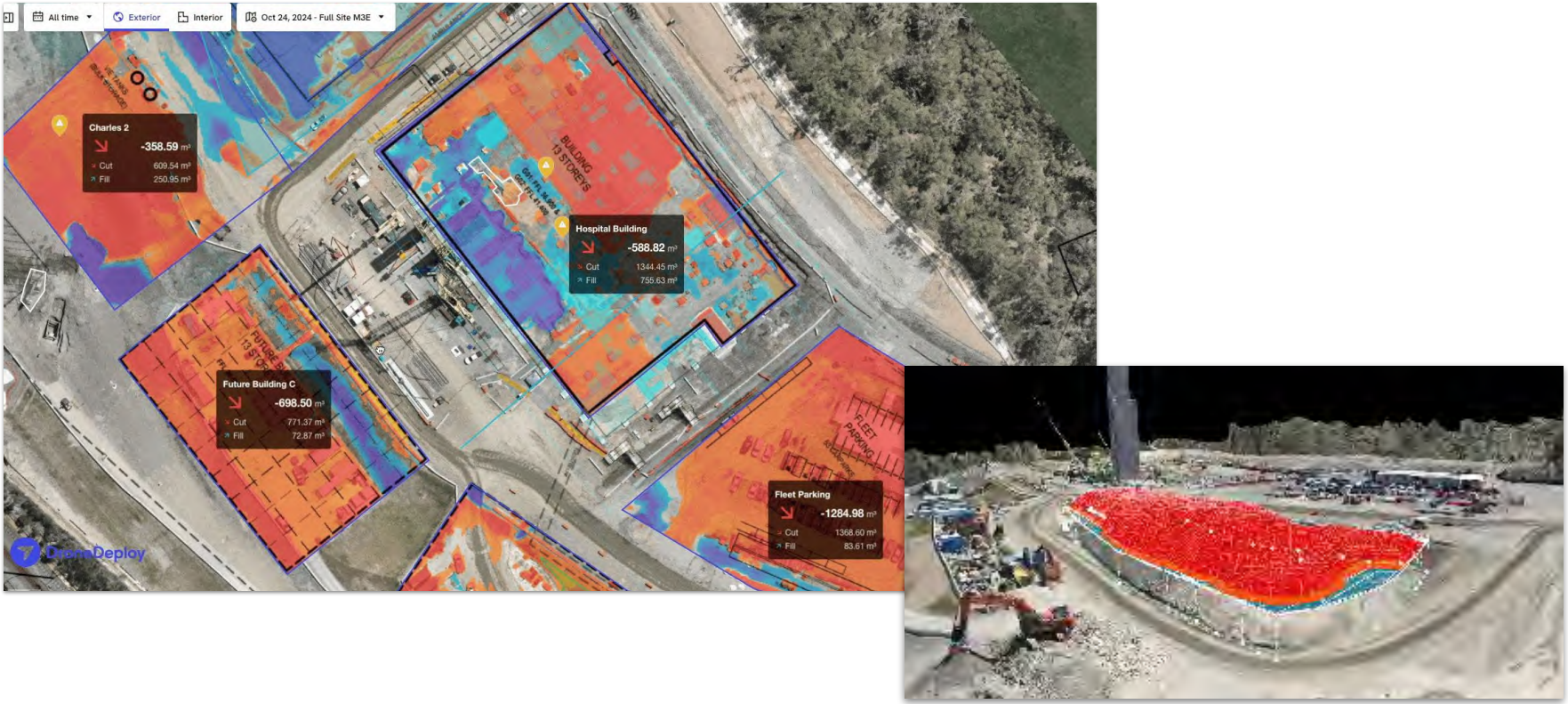
Earthworks

Design Planning

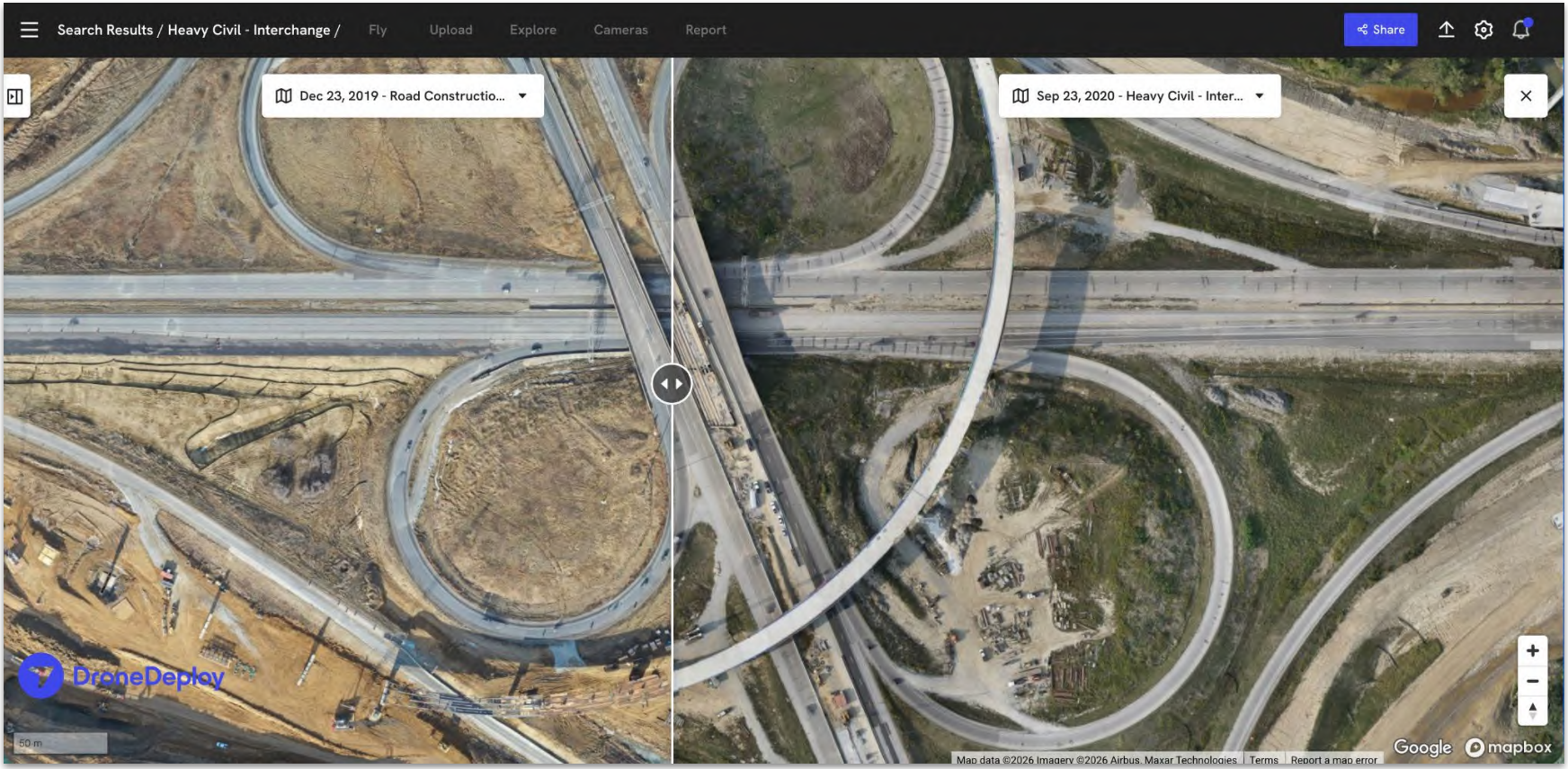


Remote Inspections

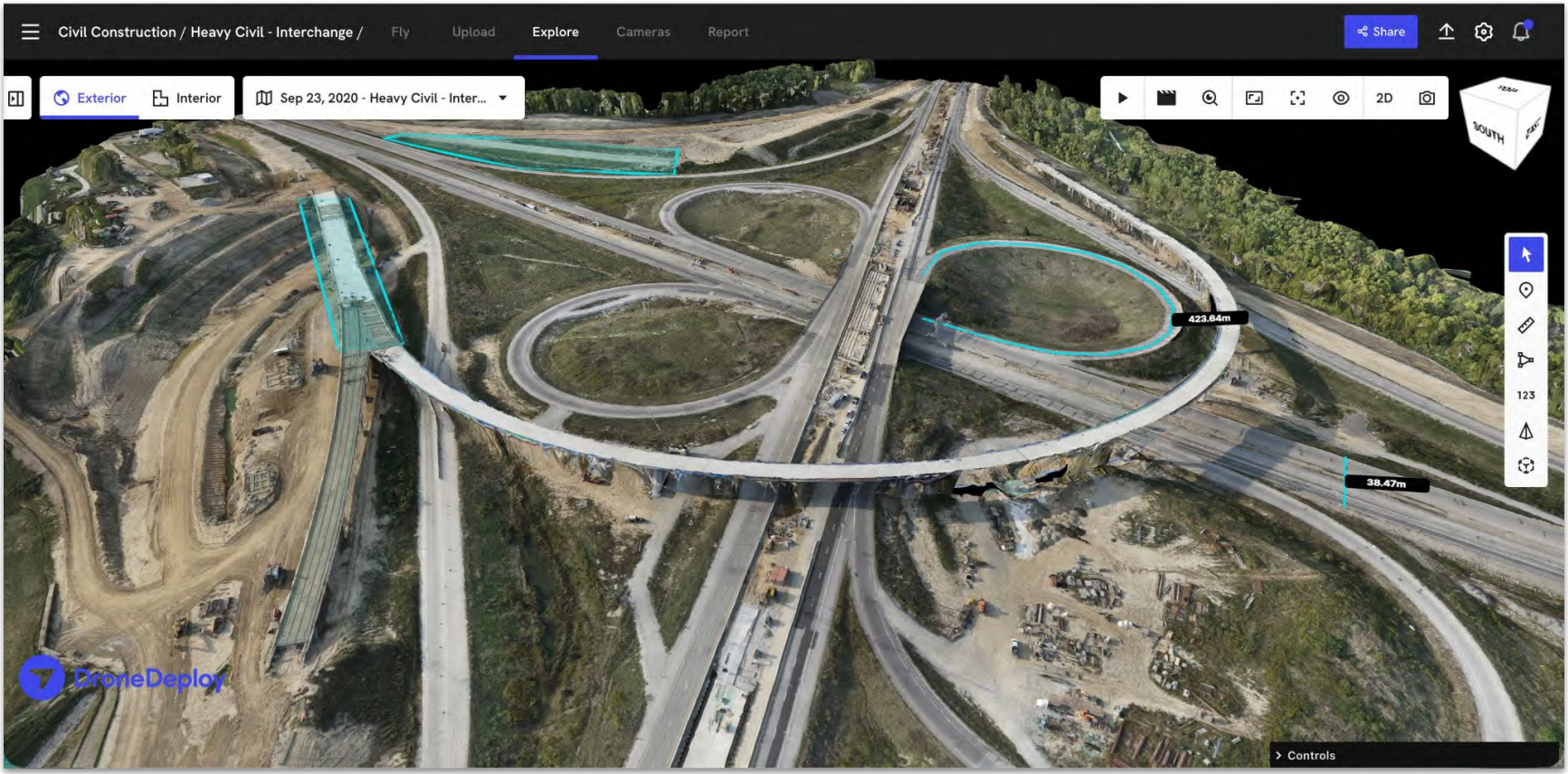
Use Case: Earthworks, Cut Fill Analysis



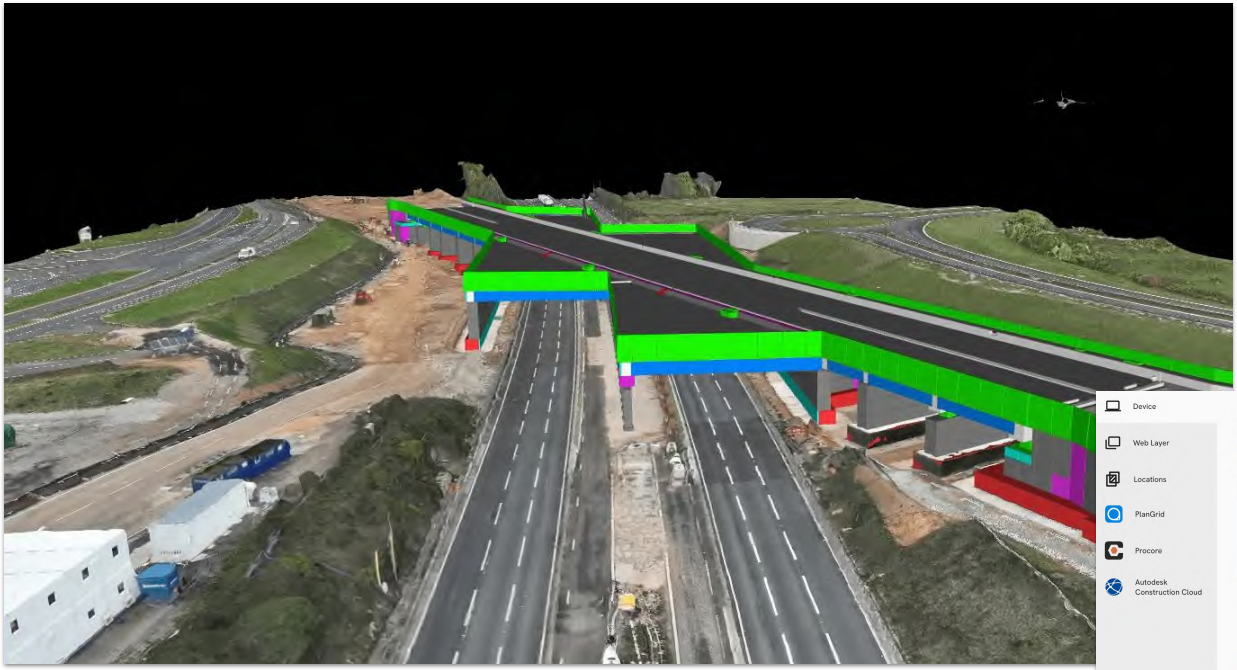
Use Case: Compare 2D Maps over Time

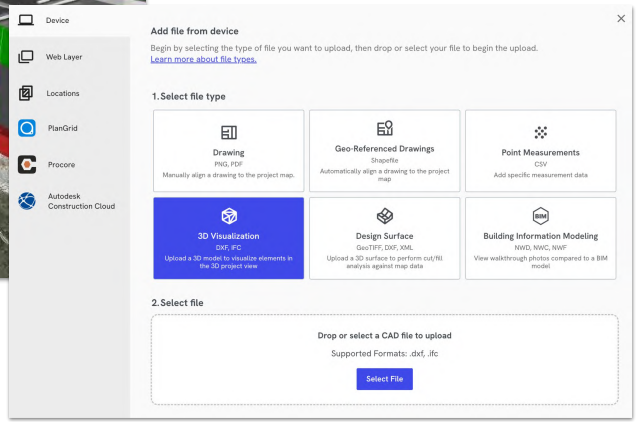


Use Case: Measurements and Annotations with 3D Mesh Models

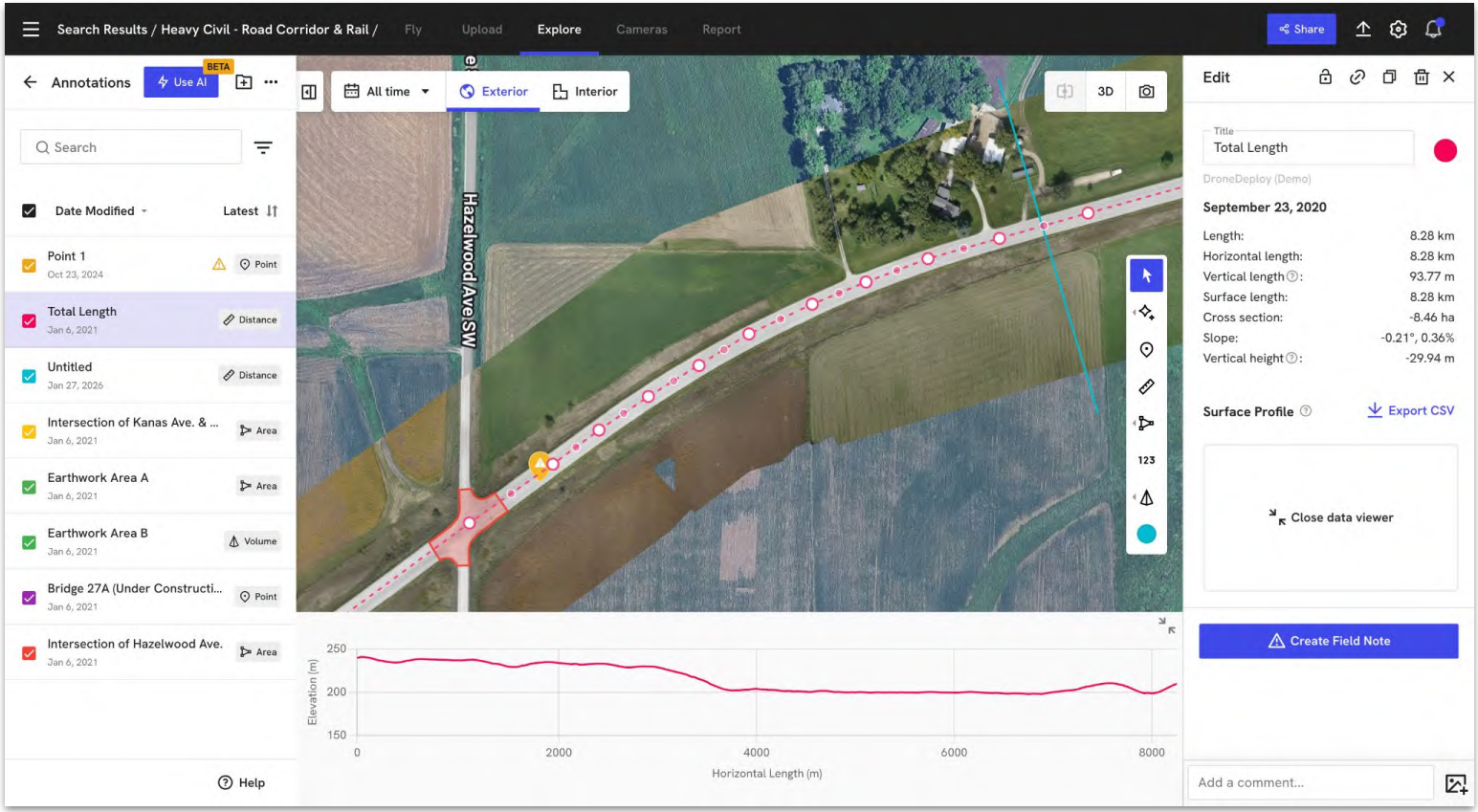


Use Case: Design Planning + Verification



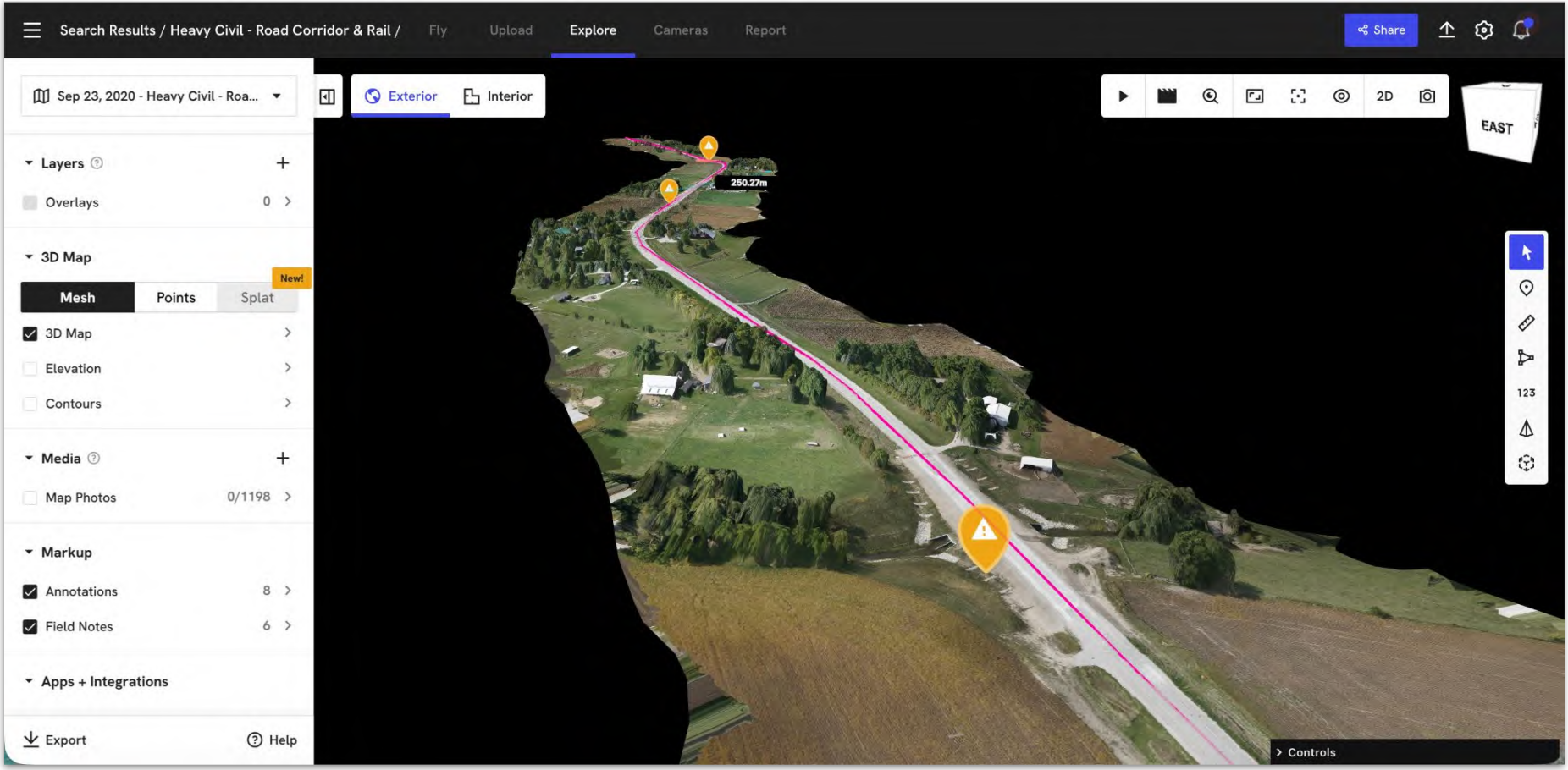


Use Case: Long Linear 3D Models and Elevation Profiles

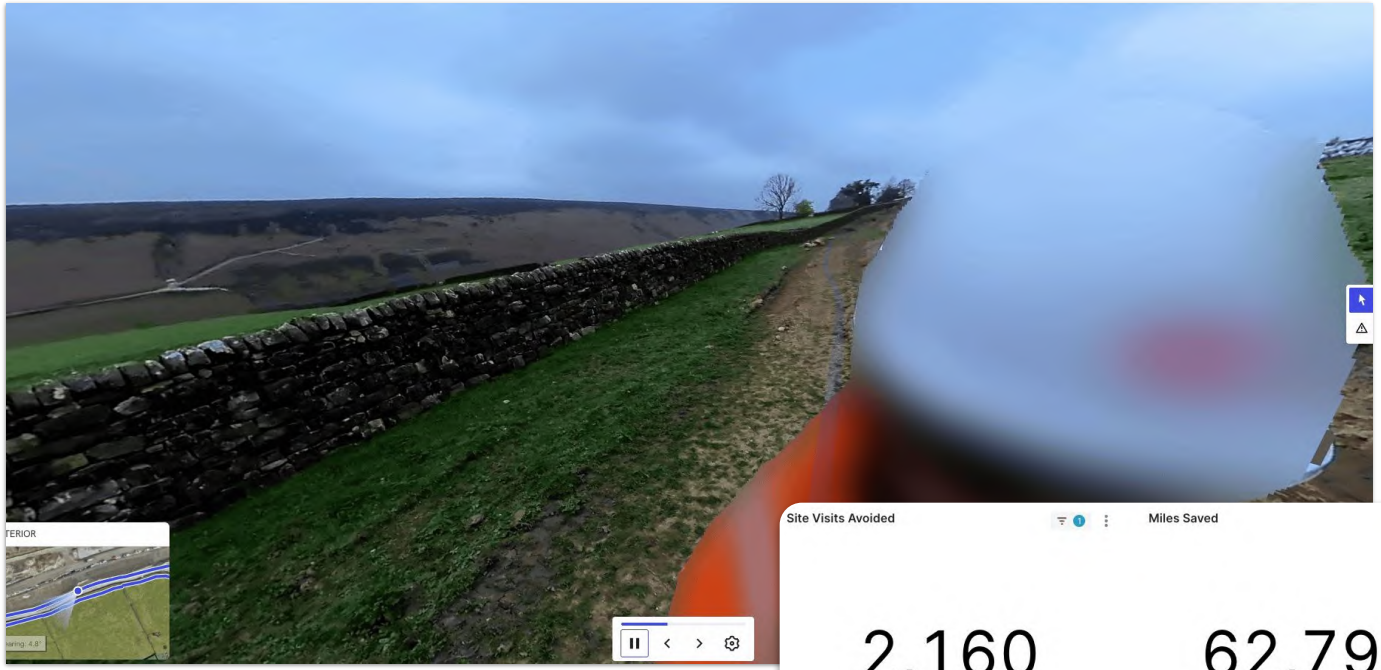


Use Case: Cross Section Review

Use Case: Long Linear 3D Models and Elevation Profiles

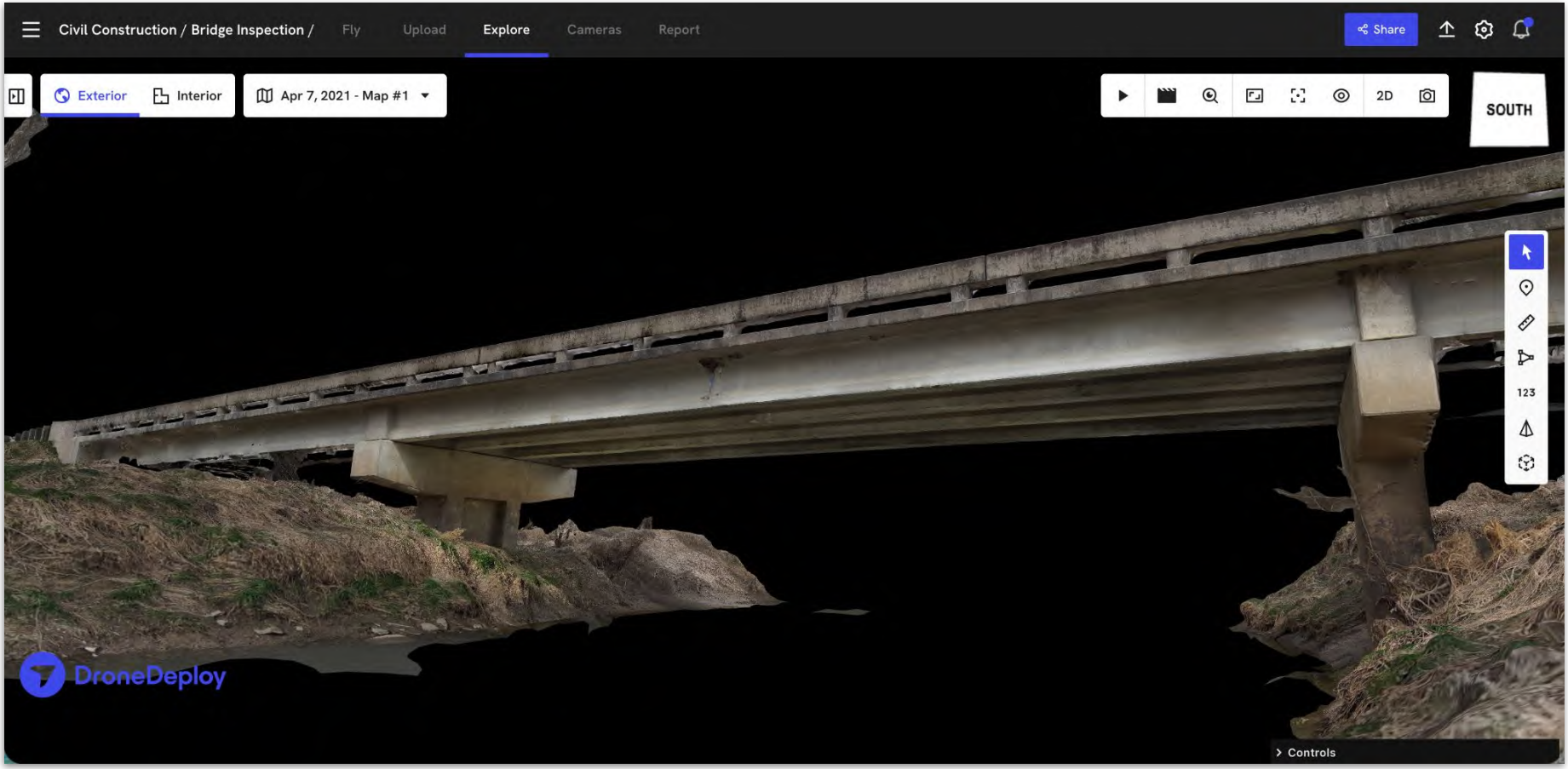


Use Case: Remote Visits and Site Conditions

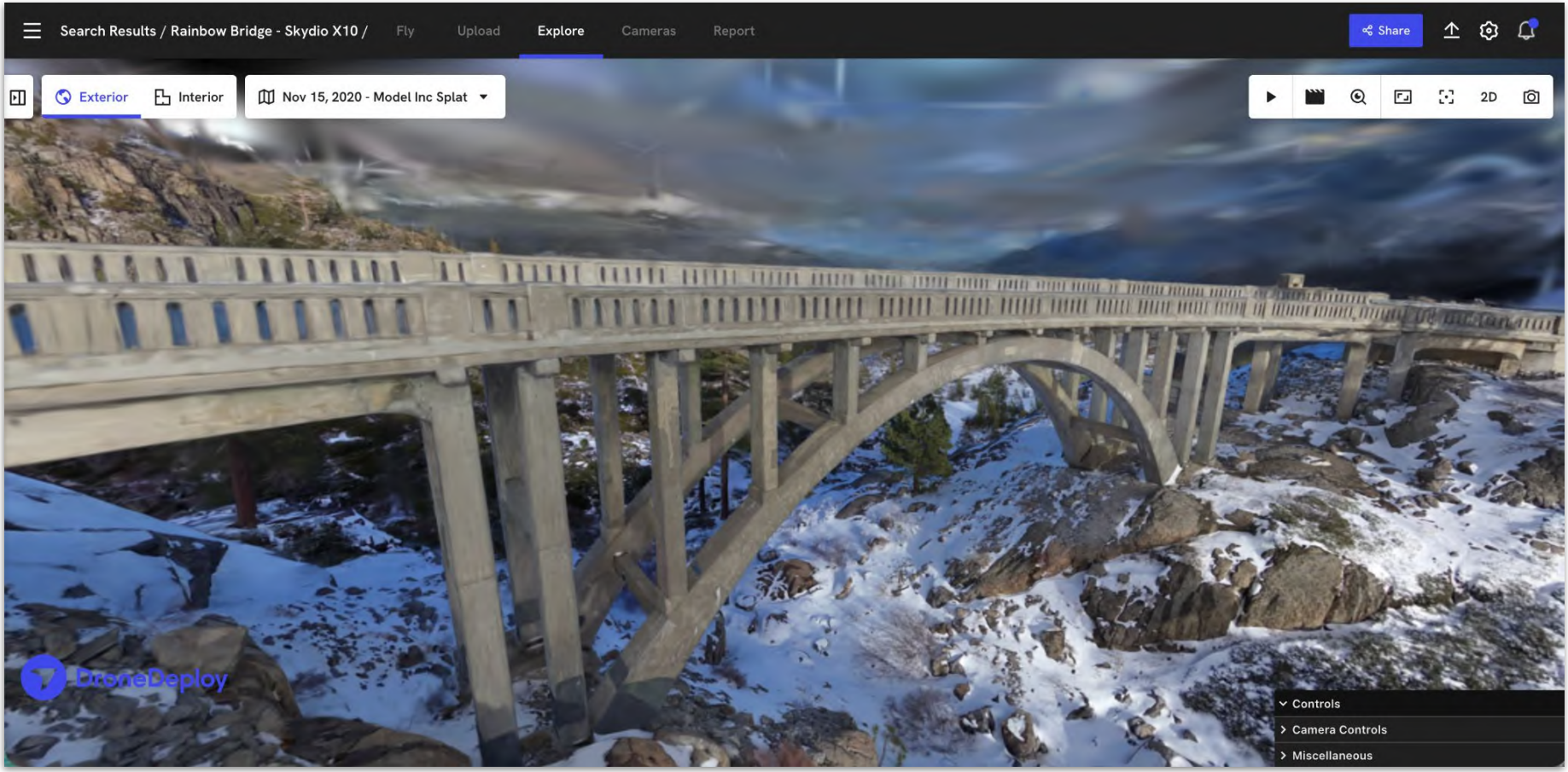


Site Visits Avoided	Miles Saved	Tons of CO2 Saved
2,160	62,791	25

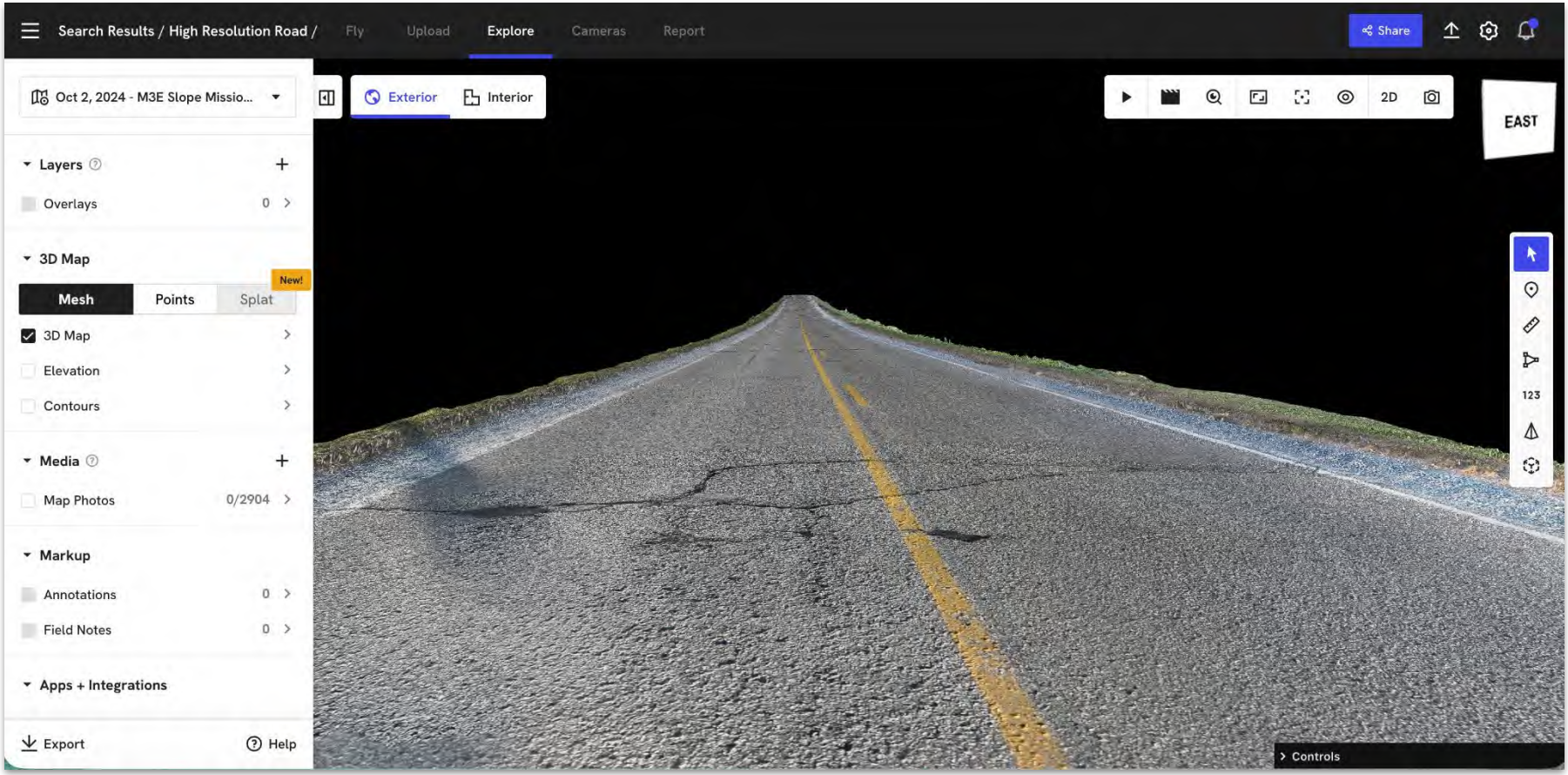
Use Case: Bridge Inspections with 3D Mesh Models



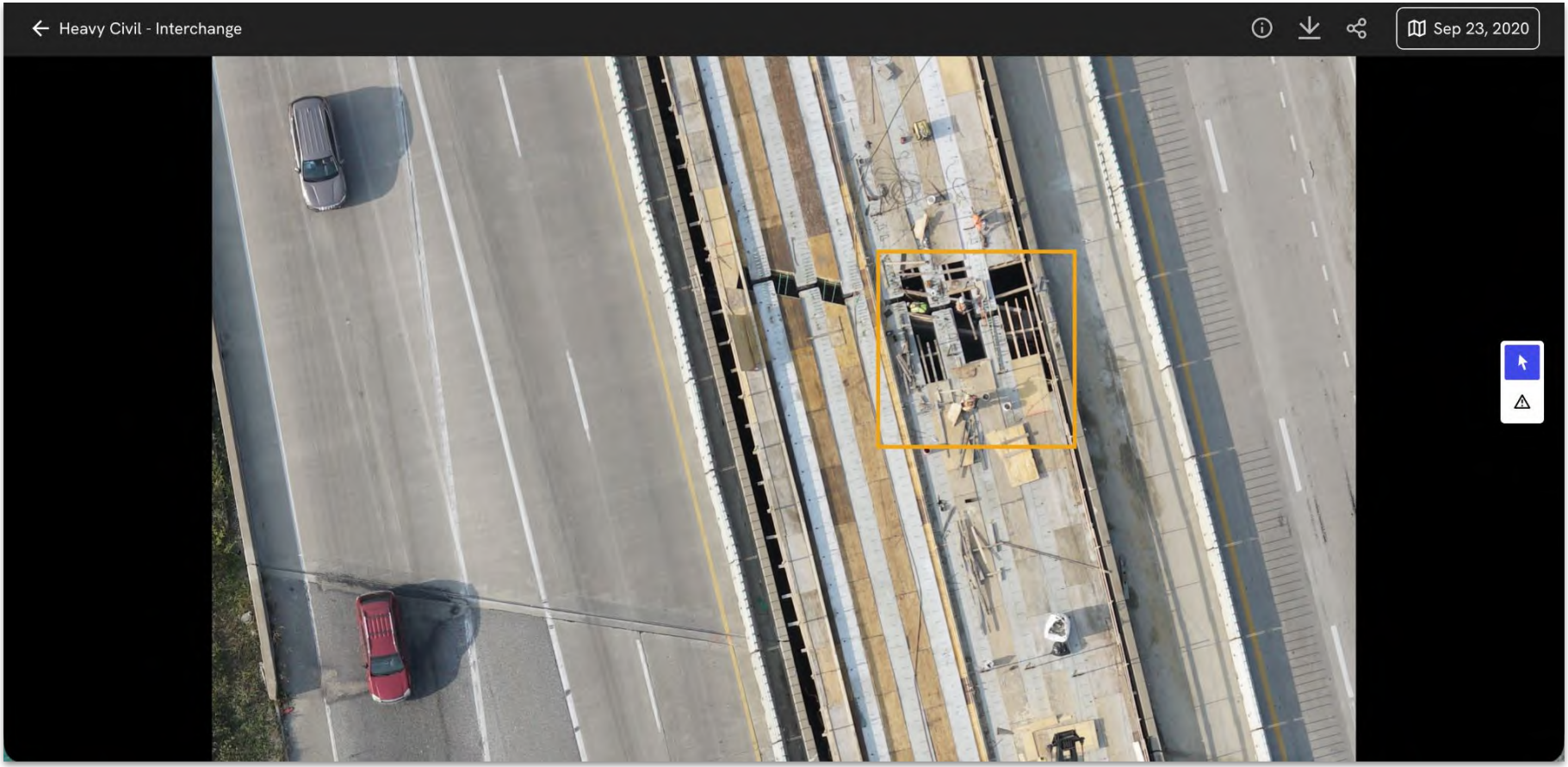
Use Case: Bridge Inspections with 3D Gaussian Splats



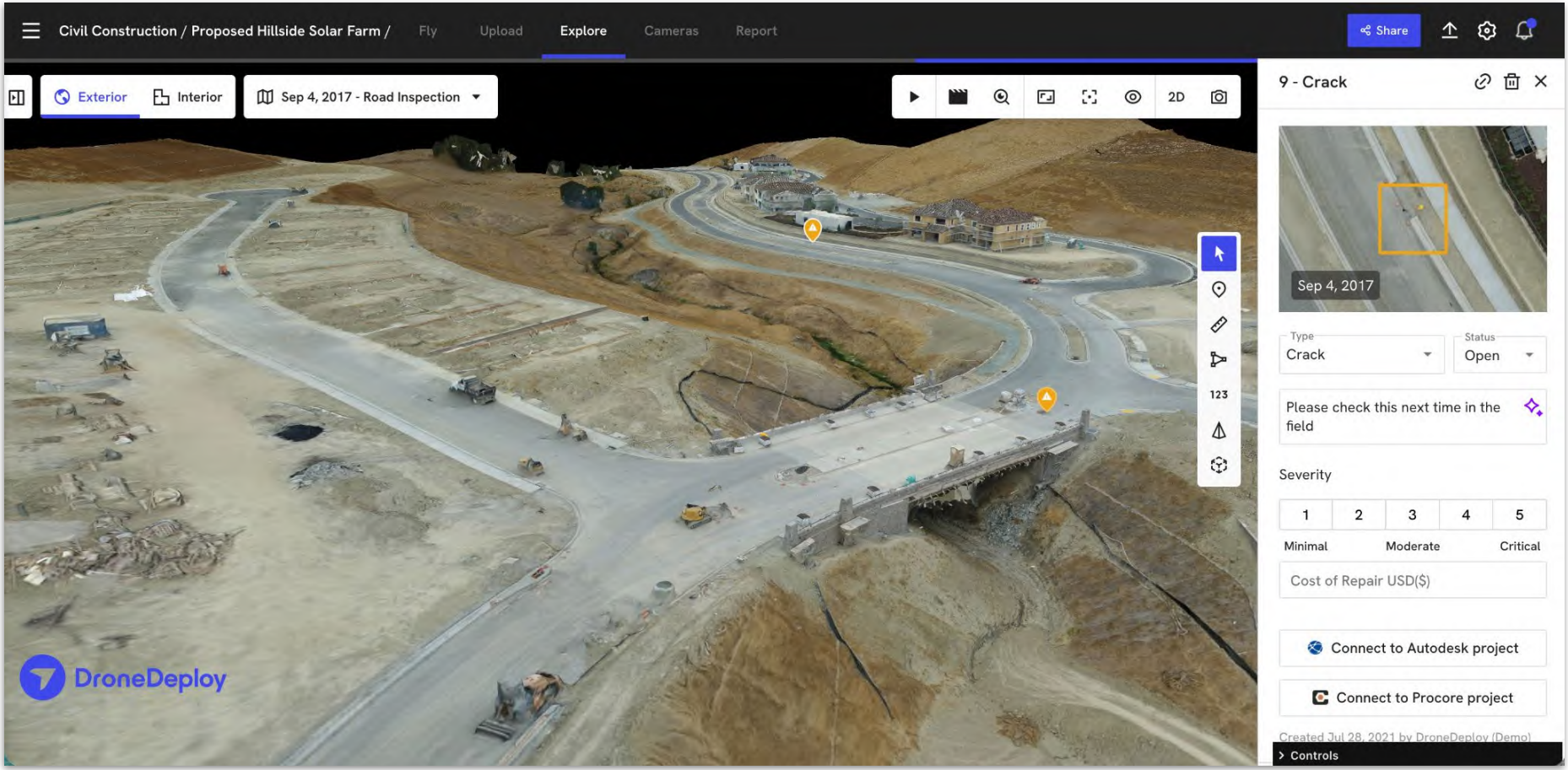
Use Case: High Resolution 3D Models and Maps of Road Surfaces



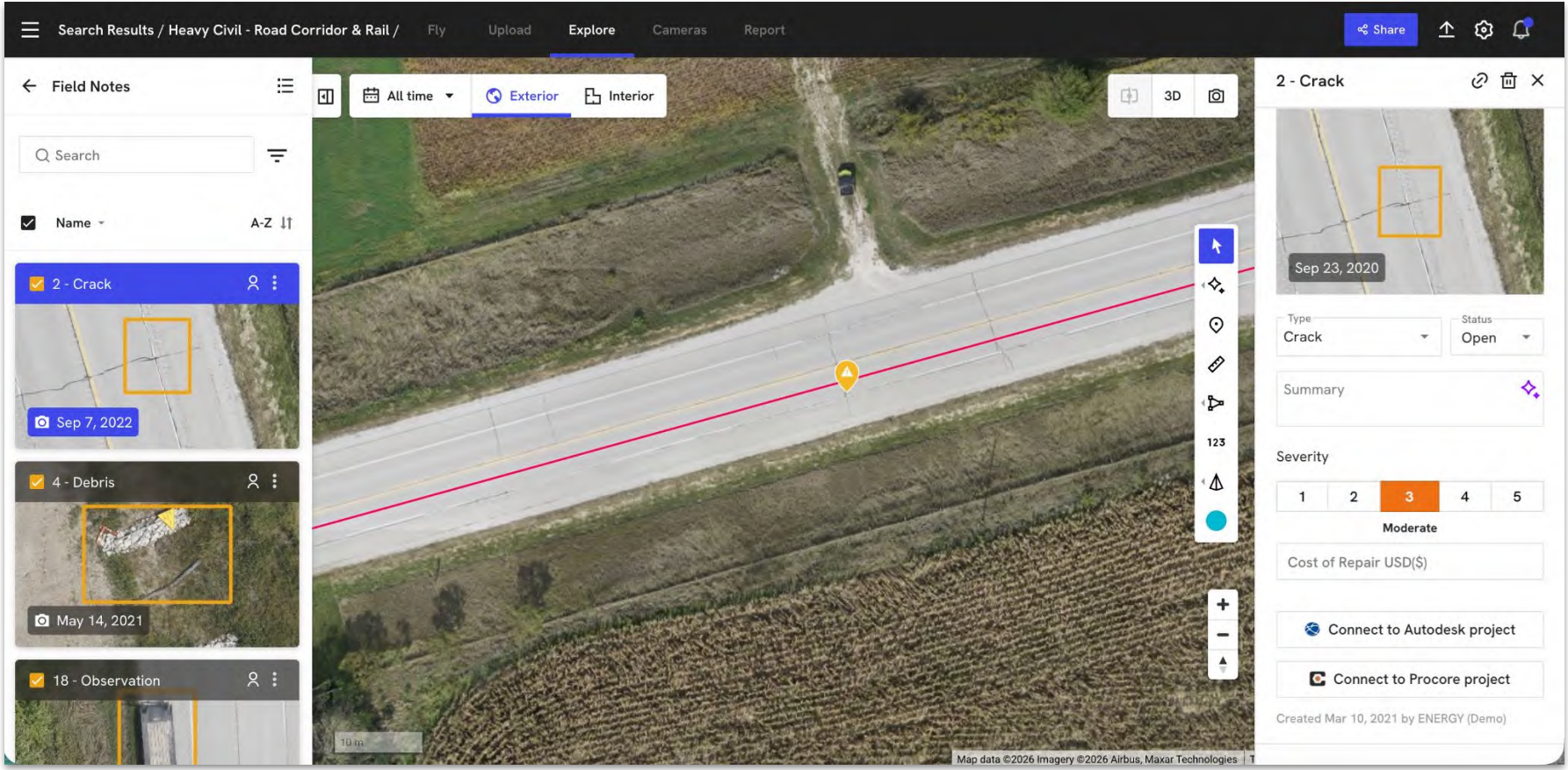
Use Case: Safety Issue Tracking with Field Notes on Drone Photos



Use Case: Quality Issue Tracking with Field Notes on 3D Mesh Models



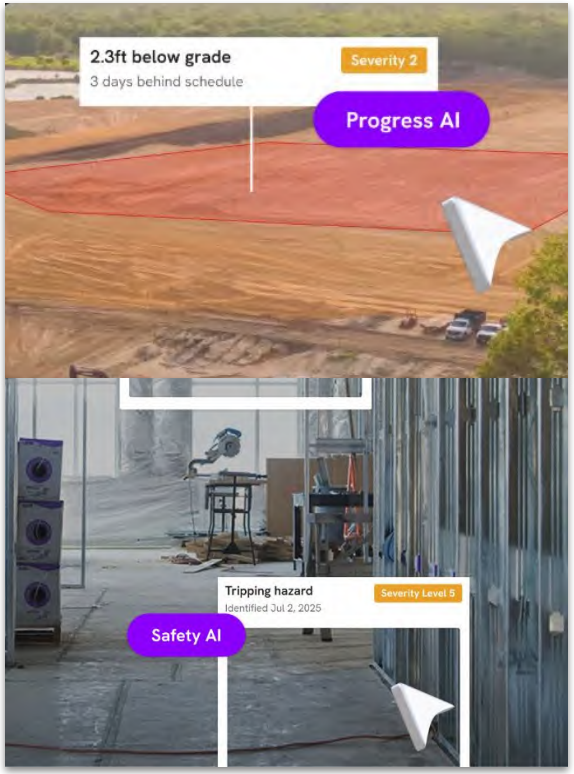
Use Case: Quality Issue Tracking with Field Notes on 3D Mesh Models



The Future: Automation, Data and AI

Dock Drones

Robotics



AI Insights

The Future: Automation, Data and AI

By 2030, **50%+ of data collected** will be collected **by autonomous robot**

Dock Drones *Robotics* *AI Insights*

Conclusions & Q&A

Thank you!

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