



ertical Access operates a fleet of DJI<sup>™</sup> Phantom quadcopter Unmanned Aerial Vehices (UAVs, or drones) to aid in the investigation of buildings and infrastructure. Our team of FAA-certified UAV pilots utilize drone technology in a number of applications ranging from reconnaissance surveys highlighting areas of concern for further investigation to flying lightweight rigging cords up and over structural elements to gain hands-on access.

If hands-on access is not feasible, high resolution photographs and video taken from mounted cameras provide sharp images for conditions assessment. When paired with software like Pix4D or AgiSoft PhotoScan for photogrammetric data capture, these aerial survey images can be used to generate point clouds and 3D models for evaluation and documenting dimensional data. Additionally, our on-board FLIR Vue<sup>™</sup> Pro infrared camera is used to produce thermographic images to distinguish areas with potential water infiltration.

Regardless of the application, our team operates in full compliance with FAA Part 107, Small Unmanned Aircraft Regulations. All of our aircraft are registered and each of our TSA-vetted operators holds a Remote Pilot Certificate.

## **UAV Applications:**

- Reconnaissance survey
- Conditions Assessment
- Annotated conditions drawing
- High resolution photography
- Video documentation
- Photogrammetric data capture
- Infrared survey
- Rigging and pre-rigging site evaluation

Vertical Access partners and staff have presented on the various applications and regulations relating to UAV use at a number of conferences and workshops.

More information on our UAV Surveys is found on our website at: http://vertical-access.com/services/uav-drone-surveys/ and in published articles including:

Kelley Streeter, P.E., and Kristen V. Olson, "3D Models Take Off with Drone Technology", SWRI Applicator magazine, Summer 2016.

