



# Using Drones on Construction Sites

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# What is a Drone?

- A term used to describe an unmanned aerial vehicle (UAV) also known as an unmanned aircraft system (UAS)
- Perform aerial missions without putting a pilot at risk
- A pilot controls the vehicle from the ground by remote control
- Can be equipped with a camera to send live video back to the pilot

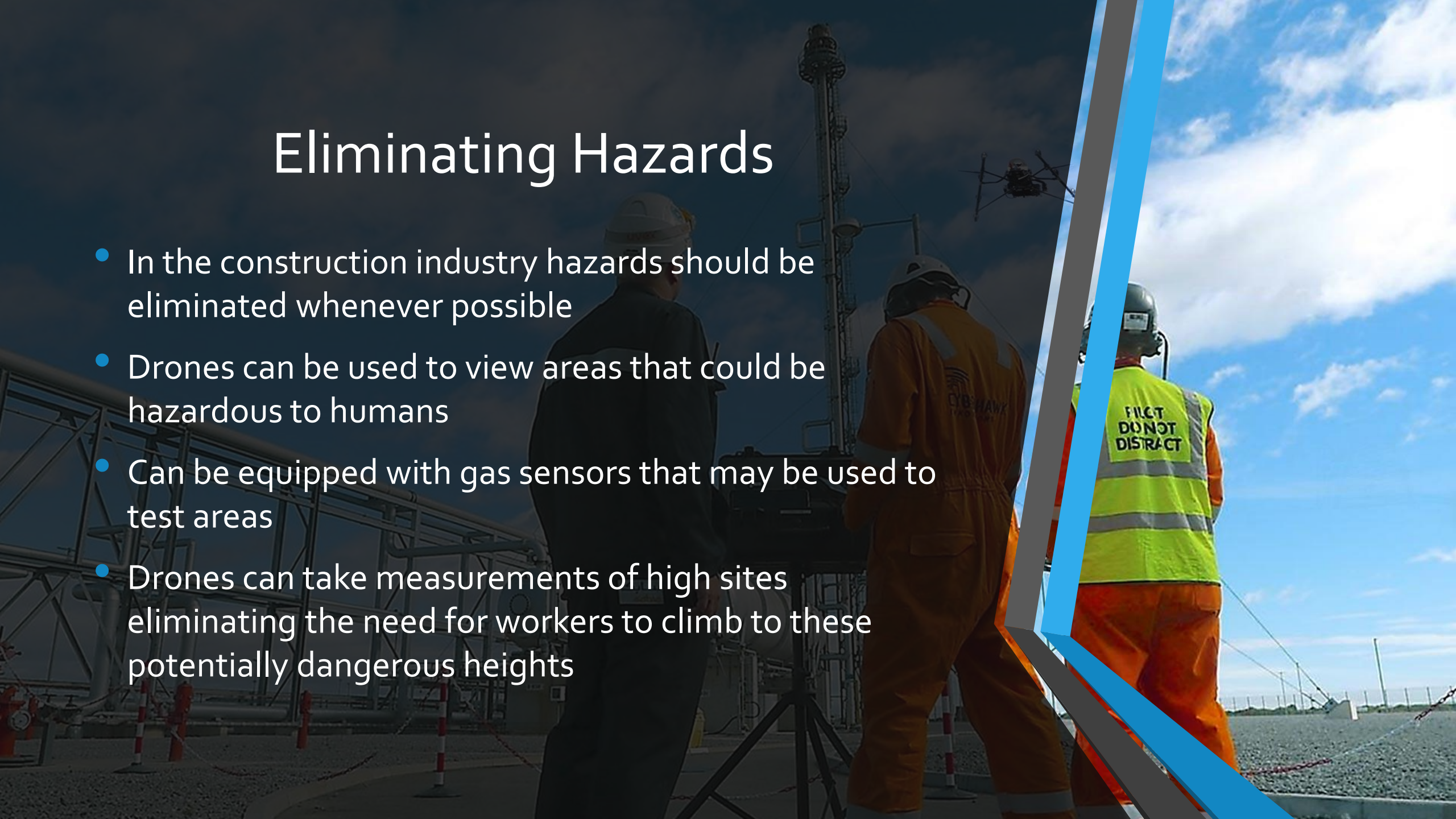


# How Could Drones Benefit a Field like Construction?

- Drones can be equipped with a camera that sends video back to the pilot to provide a bird's eye view
- Can also be equipped with GPS, thermal sensors, and infrared sensors
- Video can be recorded and saved
- Provides a view that otherwise would not have been seen
- Helps monitor and document site progress

# Eliminating Hazards

- In the construction industry hazards should be eliminated whenever possible
- Drones can be used to view areas that could be hazardous to humans
- Can be equipped with gas sensors that may be used to test areas
- Drones can take measurements of high sites eliminating the need for workers to climb to these potentially dangerous heights



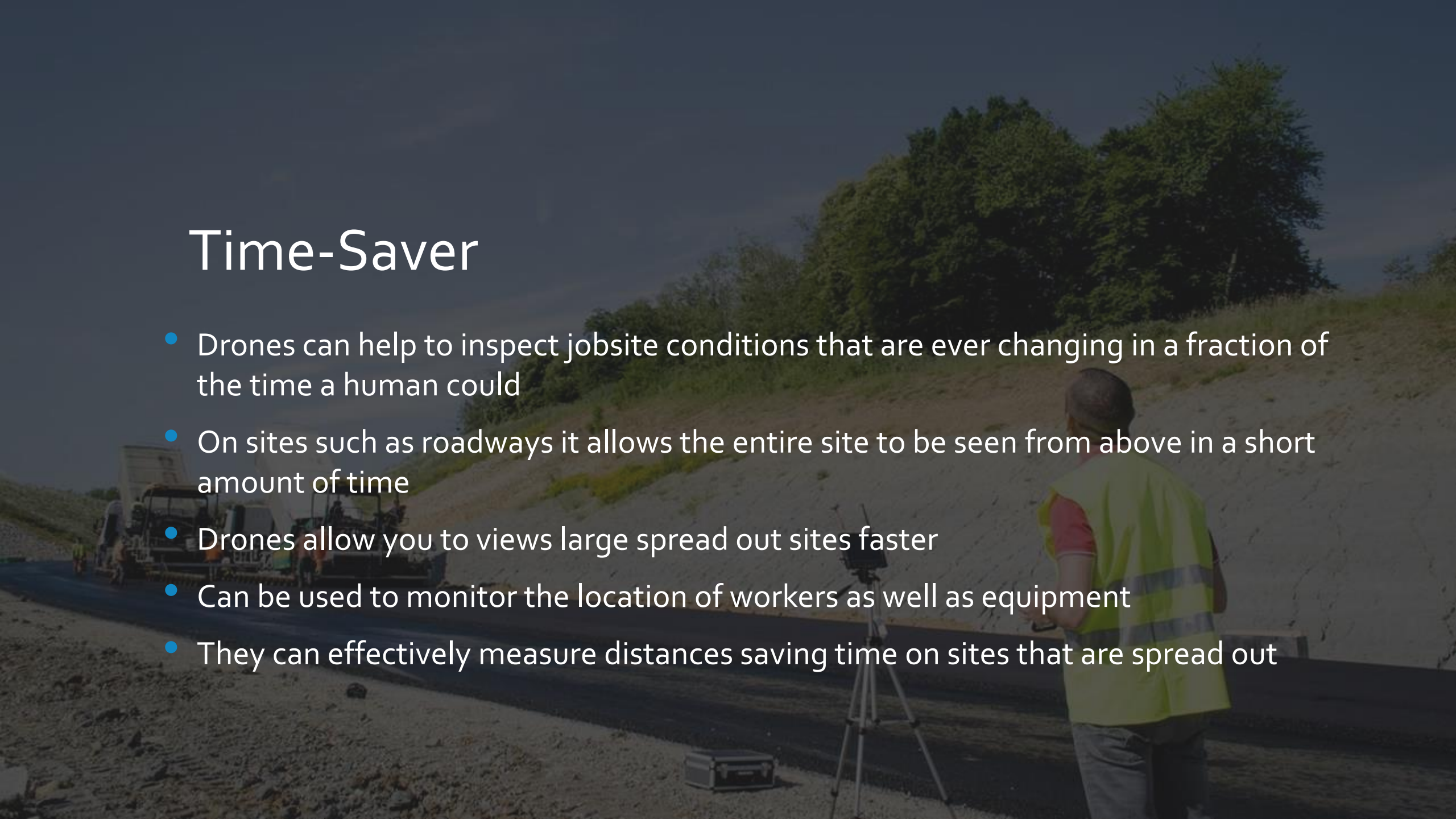


# Inspections

- Drones can be used to inspect structures that could be difficult to reach or that are high up
- For Example: Gain a better view on a bridge that needs inspecting
- Would make inspecting large structures such as tall buildings easier
- Help improve site security and can be used for surveillance

# Time-Saver

- Drones can help to inspect jobsite conditions that are ever changing in a fraction of the time a human could
- On sites such as roadways it allows the entire site to be seen from above in a short amount of time
- Drones allow you to view large spread out sites faster
- Can be used to monitor the location of workers as well as equipment
- They can effectively measure distances saving time on sites that are spread out



# Design Process

- Can be equipped with 3D laser survey to develop a 3D model of the site
- Can be used to create a topographic map
- These models can be uploaded into CAD and other design software
- Would be more time-effective and less costly than a surveying crew



# Post Construction



- Drones can be used to develop a unique time lapse view of the project
- Drones provide the option to show off the finished project that would not have been available before
- Drones would potentially boost sales and could open doors for new projects



# Recap

Drones can:

- Eliminate potentially hazardous situations
- Save time
- Assist in the design process
- Provide new and unique ways to showcase projects to set you apart from the rest

# Sources

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