

DRONES IN ENGINEERING

Drones have many uses, from law enforcement activities to delivering packages, but did you know the Chula Vista Engineering Department began using drones over two years ago? They began by using them for surveying numerous things such as pavement, roadways, storm drains and for construction projects.

Two Engineering employees are trained to operate the drones, which requires a Part 107 Remote Pilot License, a three-month training, and vetting by the Transportation Safety Administration (TSA).

Last year, drones were deployed to document construction of the Willow Street bridge replacement project, identify topography of waste water pump stations (a Measure P project), and identifying sink holes and deteriorating pipes. A drone was used on a recent sink hole because of its location on a steep slope between properties. The drone allowed staff to quickly identify how deep the hole was, how extensive, and how much material was needed to repair it. Sending personnel to the location for surveying would have taken longer and could have been dangerous for them.

Open Space and Land Development have also requested use of the drone for photos and video of property. Information gleaned from the drone can be compiled faster than using standard surveying procedures, thus resulting in cost savings as well. Lazovich says, "Some of the biggest benefits in using drones are the safety of our surveyors who don't have to be in the street trying to avoid traffic. It can also get to difficult areas easier and help complete a project quicker and more efficiently."

Chula Vista is the first city in the county to use drones in their engineering projects. Lazovich and Senior Civil Engineer Greg Tschersch have been contacted by other cities for advice on drone use and its capabilities.



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