

# Chasco performs construction monitoring using SimActive software



## INTRODUCTION

Chasco Constructors has an eye on Texas, in fact many eyes in the form of drones. As part of their Virtual Design Construction (VDC) group, the company incorporates the use of drones in the majority of their projects. SimActive is Chasco's go-to solution for in-house processing of aerial imagery.

Chasco has been using drones in construction for several years now in numerous ways:

- Pre-planning
- Identifying safety concerns
- Tracking progress
- Identifying potential problems or delays
- Reporting to customers

## INDUSTRY

Construction

## COUNTRY

United States

## USE CASE

Using drones to monitor construction projects from initial site planning to final landscaping and give the construction team full control over the process.

## CHALLENGES

- Site access
- Team coordination
- Understanding stakeholder deliverables
- Timelines

## BENEFITS

- Limited intrusion or work stoppages
- Scheduled repeated flights
- Rapid deliverables
- Variety of deliverables for each project phase



*"Drones are a real game-changer. They allow us to create accurate, high-resolution maps, reports, and 3D models, as well as streaming live video for immediate analysis. This makes collaboration within our team more effective and efficient. SimActive was our choice for processing these image datasets, due to the efficiency of the design interface and the on-demand nature in which these could be processed. We are very pleased with SimActive and have been using it since we started the drone program."*

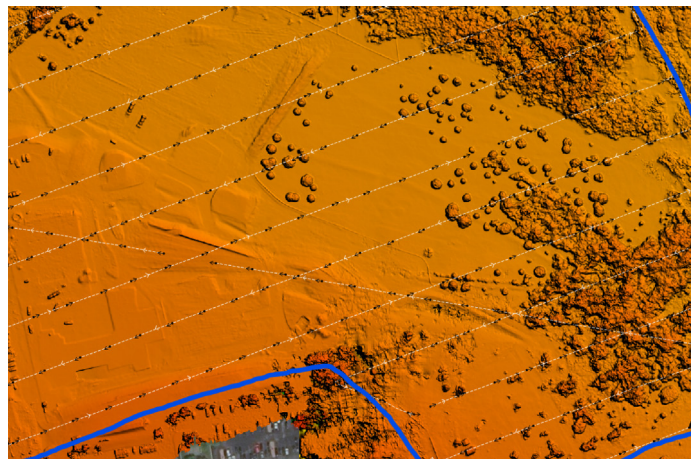
- Michael Lambert, VDC Manager at Chasco

A recent example is a 50-acre project for Round Rock Public Safety. Prior to this project, Chasco was still building a drone program and had attempted to sub-contract the work to a trusted local drone service provider. But it became quickly apparent that a more specialized in-house capability would be required for mapping, specifically adapted to construction. Plus, there were privacy concerns as this site would be used by local law enforcement for training.

Mapping is one of the primary functions that the Virtual Design Construction (VDC) group at Chasco performs. Using SimActive's Correlator3D software, 3D map products are created from drone imagery and include digital surface/terrain models (DSM/DTM) and ortho-mosaics. Volume calculation and change detection is also performed in Correlator3D.

From the map products, Chasco is able to monitor construction projects and to rapidly produce actionable deliverables to share with its stakeholders. Incorporating drones into the construction management process of the The Round Rock Public Safety project quickly proved how vital these deliverables were to the project management team and field supervisors.

Chasco was able to cut down on survey labor, minimize on-site intrusion, and more efficiently guide logistical efforts by tracking every bit of material and excavation throughout the life of the project.



DSM with flightlines overlaid

## ABOUT CHASCO CONSTRUCTORS

Chasco Constructors is an award winning General Contractor and Construction Management firm serving the Central Texas area. Formed in Round Rock, Texas in 1979 as a 4 man-shop, today Chasco is a full service commercial construction company with over 300 employees and 200 pieces of heavy equipment that prides themselves on quality workmanship, repeat business and new relationships through referrals.

