



Precision is essential in data collection and analysis. Accurate data is paramount when determining property boundaries, identifying topography, and updating maps. Inaccurate or incomplete data can create liabilities for a project or client. Skilled, versatile surveyors — using surface, underground, and airborne methods — help clients keep projects cost-effective, safe, and accurate.

Determine boundaries with pinpoint accuracy.

Surveying is essential in the planning and design stages of projects across industries. Property boundaries must be delineated precisely; natural and man-made objects (surface and below-ground) must be identified and portrayed; and detail-rich maps must be created. At SynTerra, civil engineering and mining engineering projects rely heavily on data from surveying. The same is true concerning environmental and remediation projects.

SynTerra professionals have experience in surface and underground surveying. SynTerra is also able to offer more advanced surveying methods: UAS (drone) use for photogrammetric mapping and GPS and robotic total stations for efficiency of one-person jobs. UAS expertise and equipment enable SynTerra surveyors to make visual observations of otherwise inaccessible or dangerous locations. Surveying data are then used by SynTerra geologists, engineers, scientists, and planners in conceptual designs, permitting activities, grading, construction oversight, remediation, and more.

SYNTERRA CAPABILITIES FOR SURVEYING

Land Surveying

- ALTA / ACSM land title surveys
- Boundary surveys
- Construction and layout staking
- Mortgage inspections
- Building permit site plans
- As-built location surveys
- Control surveys
- Design surveys
- Topographic and site surveys
- Easement surveys
- Elevation certificates
- GPS surveys
- Legal descriptions
- FEMA LOMAs (Letter of Map Amendment / revision)
- Major and minor subdivision plats
- Deed clarification and analysis
- Title research
- Aerial photo control

Mine Surveying

- Underground mapping and mine projection establishment
- Annual MSHA maps, mine license maps, other related mapping
- Property boundary surveys
- Permit boundary marking
- Control network for drone flights
- As-built surveys
- ALTA / ACSM land title surveys
- Stripping volumes
- Stockpile volumes

MSHA compliance

- Personnel monitoring
- Training

Geospatial

- Bathymetric Surveys
- GPS and aerial photogrammetry for digitizing sites, campuses, and developments from high-resolution images
- Collaboration of drone pilots and surveyors to establish accurate control networks on the ground
- Conversion of data into a variety of CAD-based deliverables, including orthomosaic photos, TIN surface models, topographic surveys, and more
- Use of rotary and fixed-wing devices for mapping a wide range of sites, including:
 - Retail developments
 - Campuses
 - Residential developments
 - Mine lands
 - Undeveloped land
 - Environmental remediation areas

