

ABOUT US

Since 1959, Bohannon Huston, Inc. (BHI) has provided exceptional services to public and private clients. As part of BHI's commitment to providing end-to-end services for our clients, our multi-disciplined teams work together under one roof to provide quality solutions that are effective, functional, sustainable, resilient, and reliable.



Robert S. Dzur, GISP ASQ CMQ/OE, Vice President and Systems Manager of Bohannon Huston, Inc. (BHI) brings more than 30 years of experience working in geospatial data development. He has served as Project Manager in charge of various technologies devising methodologies for image processing and analysis and geodata management with the highest quality and precision. He offers in-depth expertise in open-source geospatial software tools for data visualization and delivery.

*Gila Glenwood Catwalk Trail
Reconstruction Design-Build*

Gila National Forest, New Mexico



CONTACT US

ALBUQUERQUE

7500 Jefferson St NE
Albuquerque, NM
505.823.1000

LAS CRUCES

425 S. Telshor Blvd, Suite C103
Las Cruces, NM
575.532.8670

COLORADO

10303 E. Dry Creek Rd., Suite 250
Englewood, CO
303.799.5103

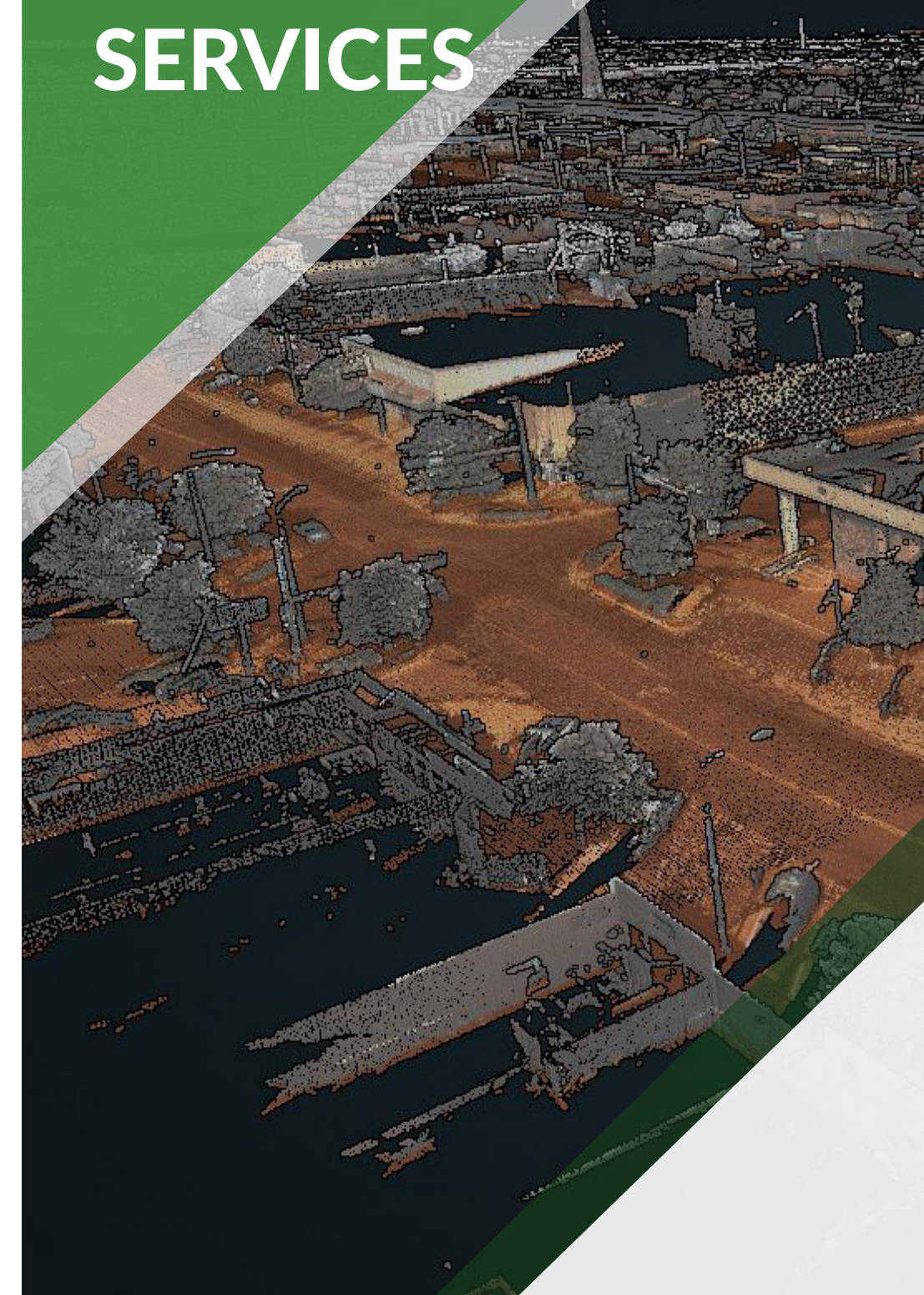
@bohannanhuston



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SPATIAL DATA SERVICES



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WE DELIVER THE HIGHEST QUALITY DATA PRODUCTS FROM COLLECTION TO CONSTRUCTION

The Spatial Data Group staff integrates the disciplines of mapping, geodetic and engineering surveying, photogrammetry, remote sensing, aerial and ground-based LIDAR surveys, geographic and land information systems, and spatial computing and analysis. We offer technology solutions to support data driven planning and risk assessment to help build resilient communities.

ORTHOPHOTOGRAPHY



Orthophotography entails removing distortions from digital aerial imagery that include the effects of lens focal length and vertical relief from terrain. It provides an accurate image description of existing ground conditions. We successfully provide:

- Natural color and near-infrared imagery
- High-density Semi-global Matching (SGM) photogrammetric point cloud
- Metric mapping platforms for high-resolution imagery
- Crisp aerial digital image capture

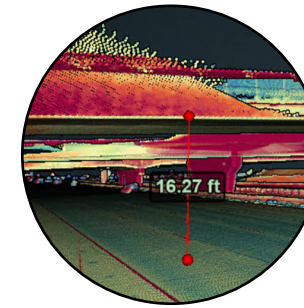
UNMANNED AERIAL SYSTEMS (UAS)



Agile low-altitude UAS/airborne platform technologies offer unique and novel approaches and sensor payloads for capturing and processing high-resolution orthophotography and 3D data products. Our expertise includes:

- FAA-certified UAS pilots
- RTK survey capable platforms
- Quality control product development and error corrections
- 3D depth and object reconstruction

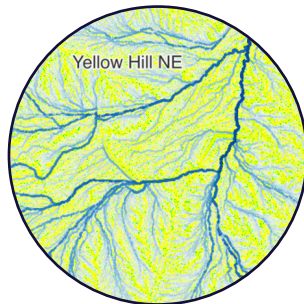
ENGINEERING MAPPING



Photogrammetric mapping from stereo aerial imagery and/or LiDAR data to provide accurate and detailed existing conditions of ground conditions and visible improvements. This mapping is survey controlled and becomes the basis for engineering design work. These services include:

- Optimized surface productivity for CAD design tools
- Autodesk and Bentley environment
- Standards enforcement
- Sophisticated block application
- GIS integrated-workflow

ELEVATION DERIVED HYDROGRAPHY



High-density stream flowline feature data modeled from high-resolution LiDAR elevation datasets lend rich interpretive, visual, and quantitative meaning to inform hydrologic and hydraulic modeling in support of infrastructure planning and development projects. Services may include hydro-enforced Digital Elevation Model (DEM) creation, where cutline features are integrated into the elevation surface to allow for more appropriate flow across roadbeds and other impediments to natural flow. We successfully provide:

- Scientific open-source GRASS GIS modeling
- Strahler Order
- Network Analysis and Calculation
- Display optimized vector data structures
- Multi-million feature datasets

MOBILE LIDAR



Vehicle-mounted laser scanning of a roadway or path corridor is used to derive a model of the corridor showing all surface improvements and a representation of the bare terrain without improvements or vegetation. Mobile LiDAR is very dense and accurate to field GPS survey standards. Our mobile lidar team offers:

- Survey grade CAD
- Multi-use asset feature class database
- Rapid 2D feature geometry collection
- Automated attribution from point cloud/reference material

PARCEL DATA / LAND OWNERSHIP MAPPING



Conversion of land record documents to digital boundaries (parcels) and associated information (attributes). This data is merged into a parcel feature adjusted to best fit real conditions as depicted in aerial photography. The mapping is created to standards used in the land management and assessment professions. Our services include:

- ESRI Parcel Fabric
- Record document digital COGO conversion

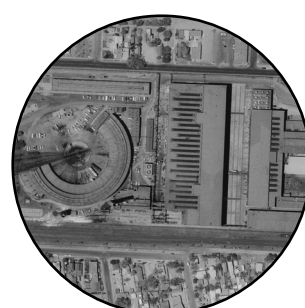
LIDAR ELEVATION



Aircraft-mounted laser scanning of a project area's surface to derive a model of the terrain showing all surface improvements and representation of the bare terrain without improvements or vegetation. LiDAR provides a dense point cloud of highly accurate elevation points. Our expertise lies in:

- Specialized in complex topographic landscape classification
- Accurate denoising algorithms for accurate contours
- Point cloud colorization
- Web point cloud access
- Integrated feature modeling for accurate infrastructure modeling

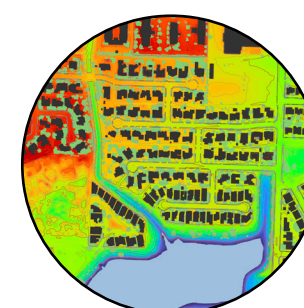
HISTORICAL IMAGERY



Creation of orthophotography from previous and much older aerial photography projects. This is a process to convert analog imagery to digital, creating a surface model for the point in time of the photograph, then creating a digital orthophoto mosaic with current geospatial reference accuracy. We can support:

- Photogrammetric processing for horizontal accuracy / geometric quality
- Historical orthorectification may be supported with field survey control
- Multi-terabyte high-volume historical processing
- Panchromatic or color historical imagery

GIS FEATURE INVENTORY



Development of visible or surveyable topographic features into digital representations used to manage built or natural infrastructure. Items like sidewalks, buildings, utilities, pavement, fences, ADA features, and more can be captured from imagery, lidar, scanning, or field survey. Our services include:

- 2D or 3D modeling
- Impervious surface mapping