

An aerial photograph of an airport terminal and surrounding infrastructure, including runways, taxiways, and parking lots. A 3D geospatial overlay is applied to the image, showing various colored layers (red, green, blue, yellow) that represent different data sets or planning scenarios. The overlay includes curved paths, rectangular zones, and small 3D models of buildings and trees. Numerous small airplane icons are scattered across the runways and taxiways.

Airport Solutions

Managing And Mapping Your Critical Resources

NIV5 GEOSPATIAL

Delivering Solutions - Improving Lives

Delivering Airport Solutions

NV5 Geospatial has been a trusted partner to airport planners, engineers, facility managers, and contractors whose objective is to build, expand, and make improvements while meeting FAA regulatory and safety requirements.

We have more than five decades of experience providing industry-leading geospatial services and solutions to hundreds of airports and airfields.

We have completed hundreds of ALP projects across the United States, including our US territories (Guam, Puerto Rico, and Northern Mariana Islands).

Our clients trust us because we provide accurate data to meet their and the FAA's expectations.





Our Solutions

- **Airport Layout Plans (ALP)**
- **Vegetation Management**
- **Obstruction Surveys**
- **Airport & Environmental Mapping**
- **GIS Data Management**
- **Emergency Response**

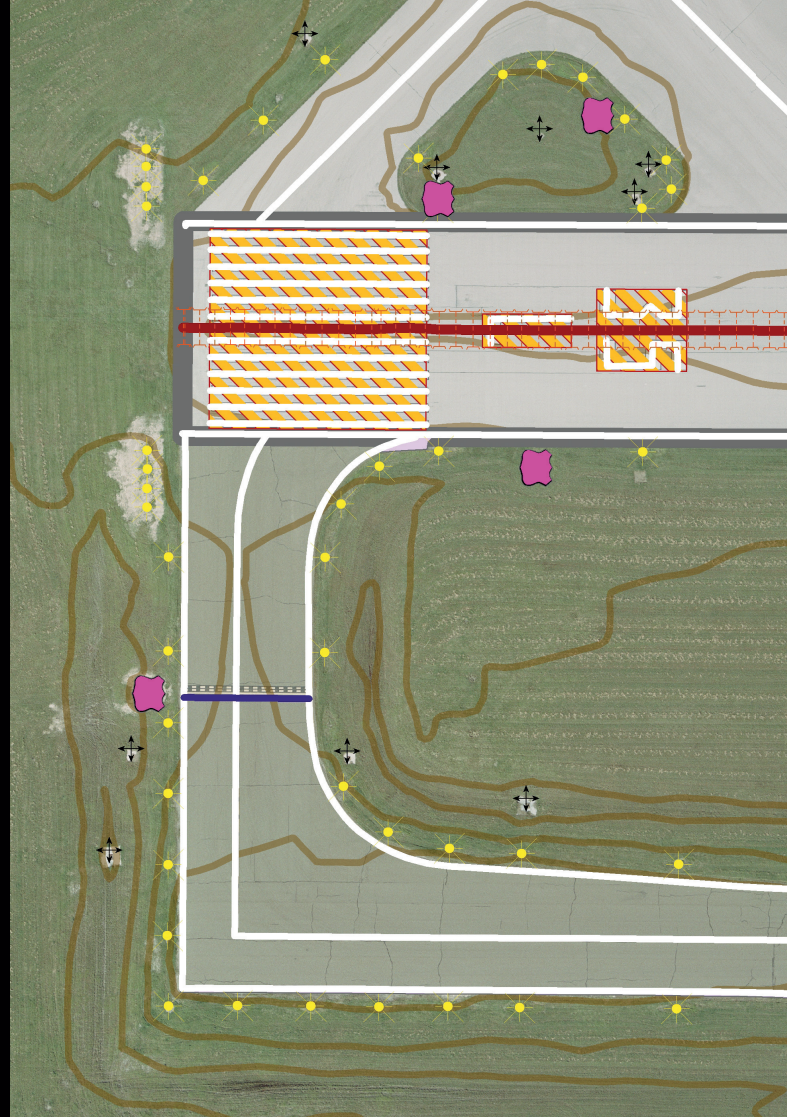
Our Services

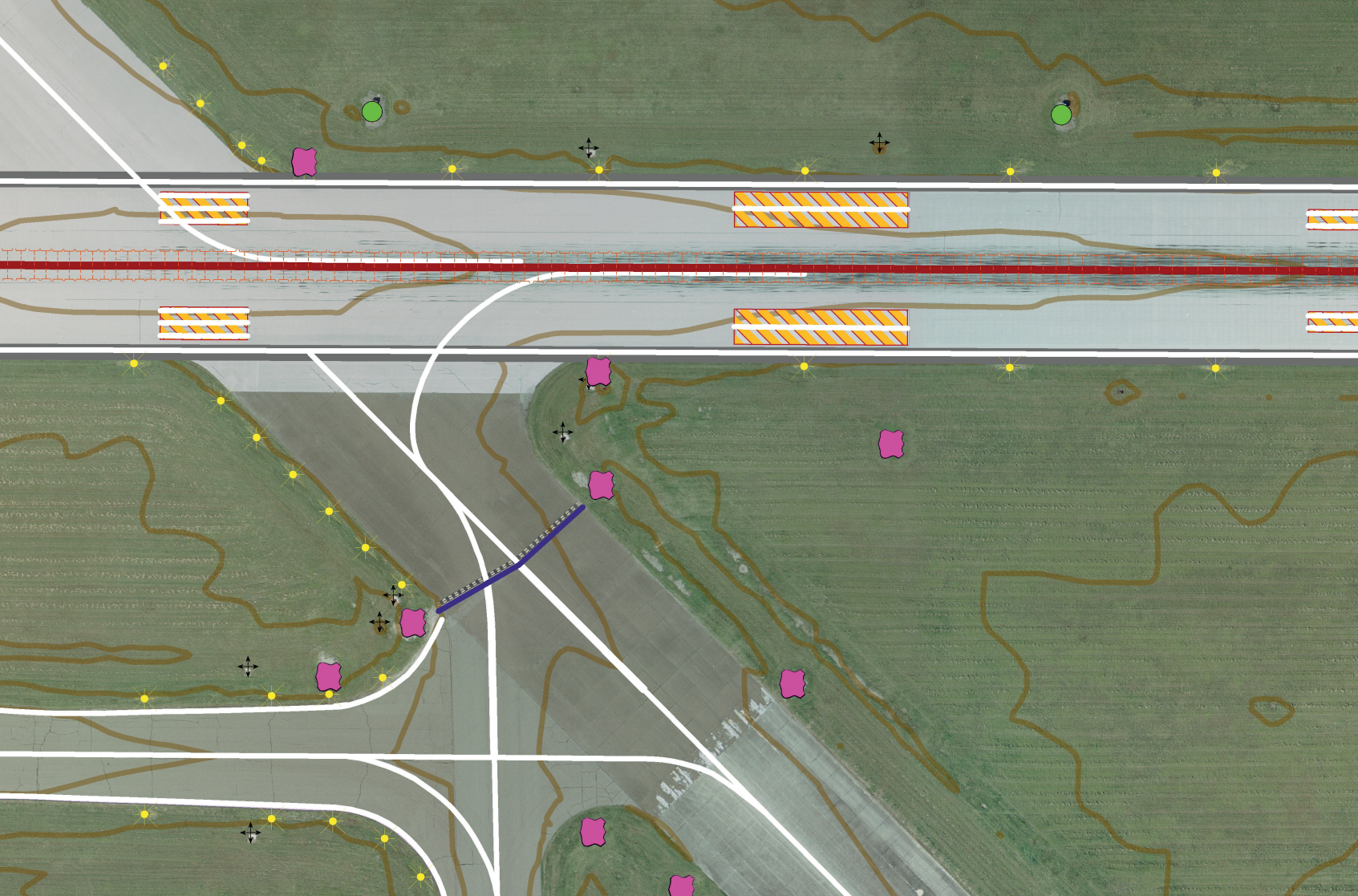
- **Aerial Photography**
- **High Accuracy Lidar**
- **Orthophotography**
- **Planimetric Mapping**
- **Topographic Mapping**
- **Mobile Mapping**
- **GIS Features & Attribution**

Master Plans & ALPs

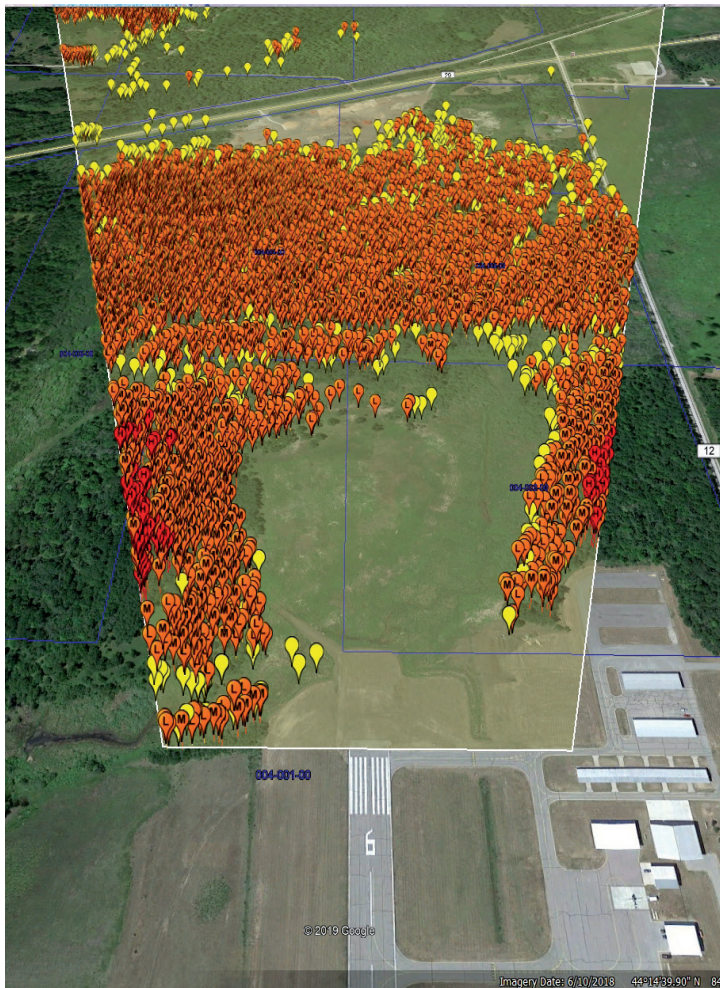
NV5 Geospatial is at the forefront in providing airport planners, engineers, and facility managers with high-accuracy topographic maps, planimetric maps, aerial imagery, and analytics to meet the Federal Aviation Administration's Advisory Circulars: AC 150/5300-16, 17, and 18.

Services include imagery acquisition, ground survey, digital orthophotography, high-accuracy base-map generation, airspace analysis for vertically and non-vertically guided runways, and mapping and attribution for Airport Layout Plans (ALPs).









Vegetation Management Using Lidar

One of the many challenges at an airport is understanding vegetation obstructions and their relationship to the airport.

Traditional aerial photogrammetric mapping is required for FAA reporting, but the data and information compiled are constrained by image resolution, photointerpretation, and the potential vegetation obstructions to the airspace.

NV5 Geospatial has developed a proprietary platform to expedite vegetation management using aerial lidar surveys, a high-accuracy solution to identify specific trees impacting the airspace.

Why High Accuracy Lidar?

Allows us to target 8-12 ppsm that also allows for better modeling of the feature or potential hazard.

Technical Requirements for Vegetation Management

Point Density

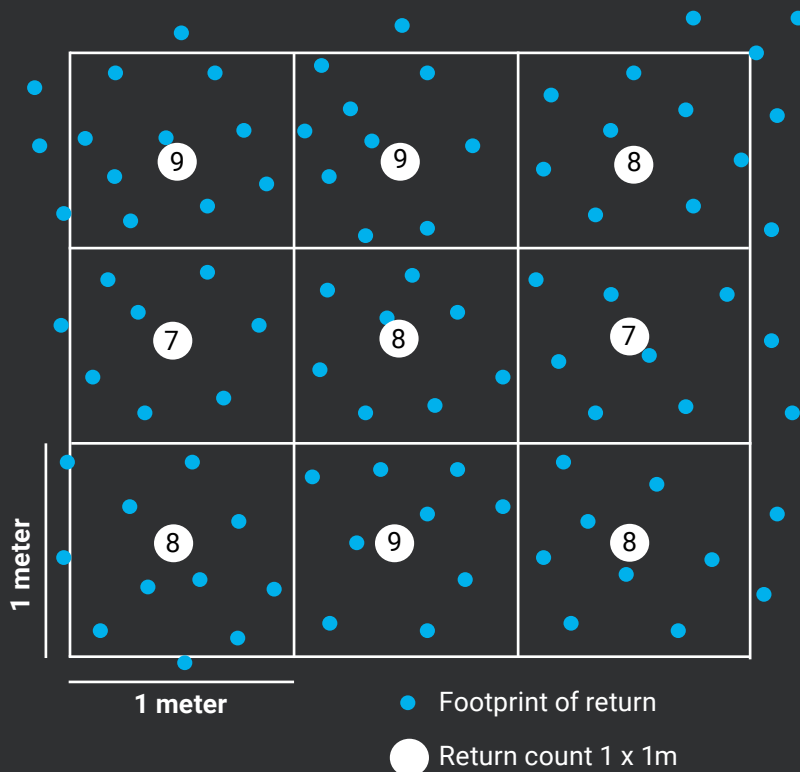
- Nominal point density of at least 8 points per square meter (ppsm)

Vertical Accuracy

- Vertical Accuracy as a root mean square error (RMSEz) of ~4 inches

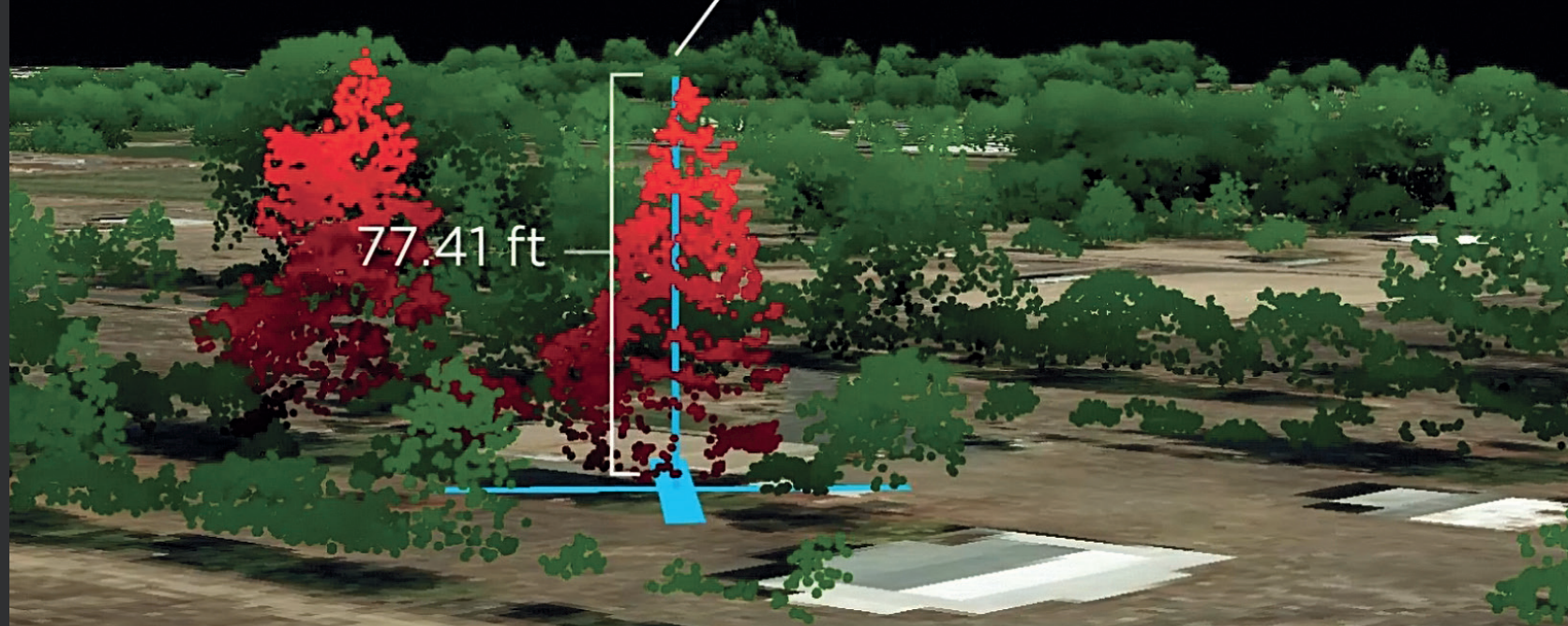
Temporal Requirements

- Peak deciduous leaf on - late spring to early fall



Tree ID T31042
38.520459, -122.807122

77.41 ft



KFFT Obstruction Analysis Report

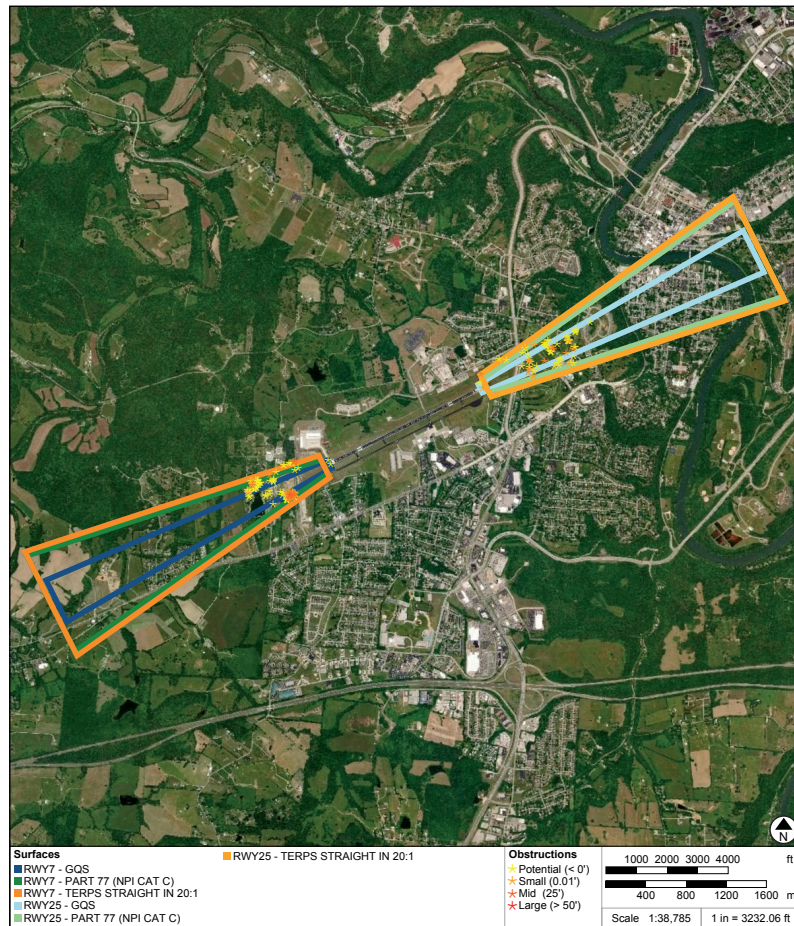


Capital City Airport Runway 7/25 (5506' x 100')

Acquired on 10/04/2016
38.182° N, 84.907° W
Elevation: 812.3'

OBSTRUCTION RESULTS

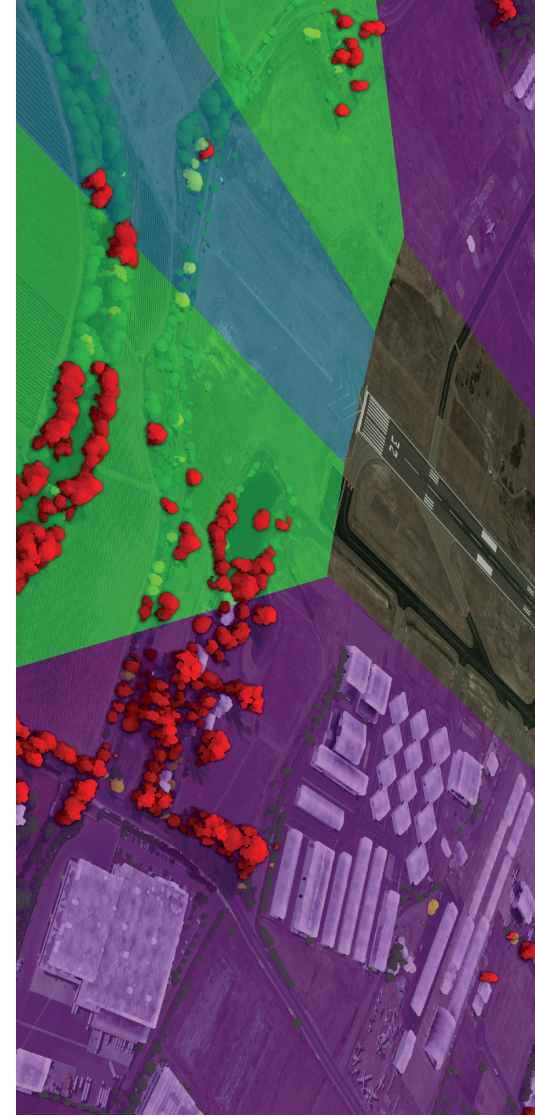
Runway	Aviation Surface	Parcels	Obstructions	Potential
7	GQS	2	0	3
	PART 77 (NPI CAT C)	5	41	63
	TERPS STRAIGHT IN 20:1	4	4	9
	Totals	5	45	73
25	GQS	2	1	6
	PART 77 (NPI CAT C)	3	18	49
	TERPS STRAIGHT IN 20:1	2	4	1
	Totals	4	21	51

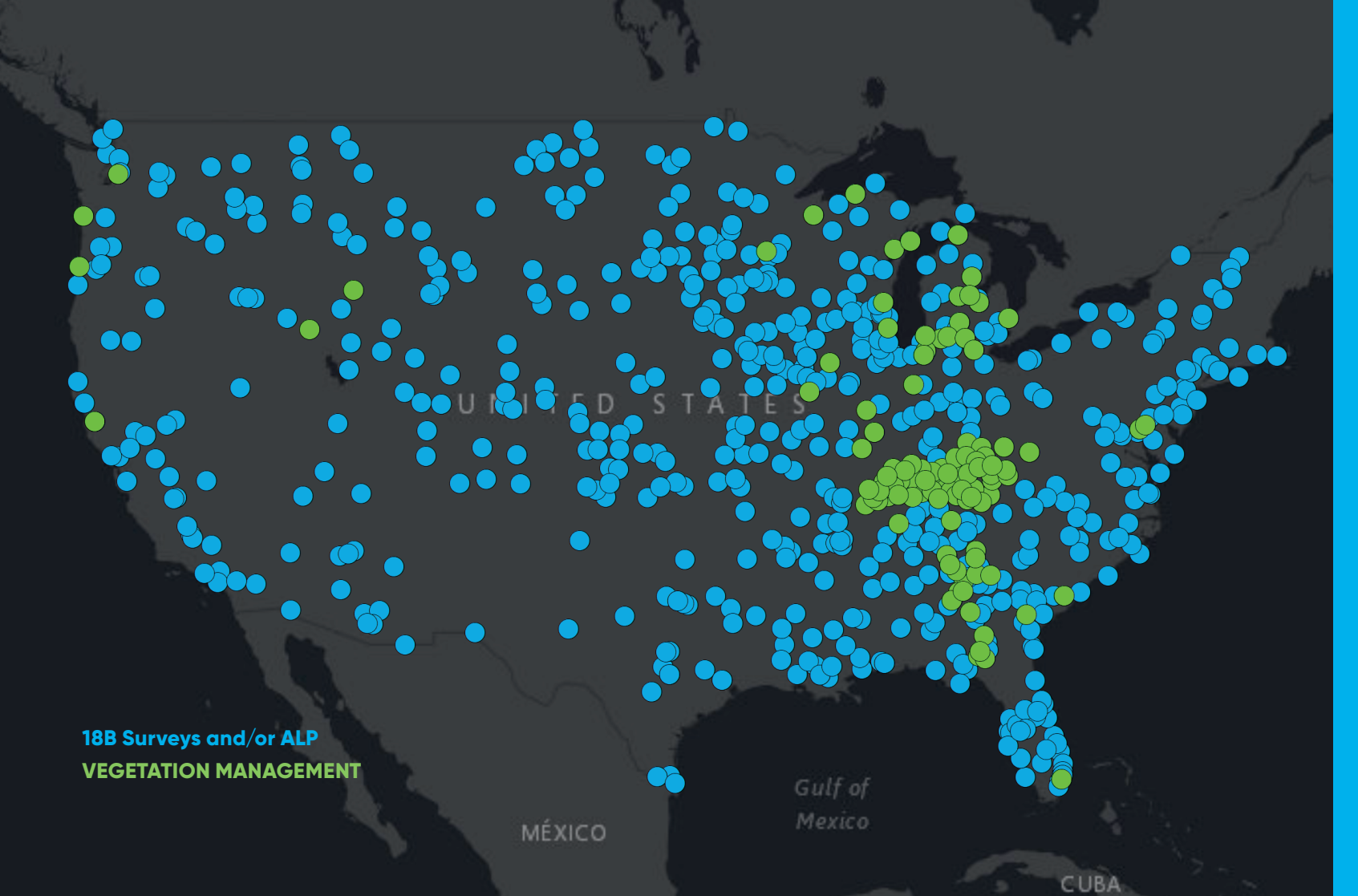


Reporting

NV5 Geospatial's robust reporting for vegetation management includes:

- **Overall Obstruction Report** - broken down by parcel data of all obstructions/potential obstructions found that penetrate the aviation surfaces. *The potential obstructions help to provide future planning for keeping the aviation surfaces clear for a few additional years, depending on tree growth.*
- **Aviation Surface Break Down**, to allow for only a specific surface to be cleared.
- **Google Earth KML files per surface** - allowing for ease of viewing/project meetings/directions for other groups to view/use the datasets.
- **Excel Spreadsheets per surface** - allows for tabular viewing of the obstructions, or another way to provide direction as to the location of the problem features.
- **ESRI Shapefiles per surface** - allows for data to be easily converted to other formats showing the location of obstructions.





18B Surveys and/or ALP
VEGETATION MANAGEMENT

Notable Projects (Abbreviated List)

- Dallas Fort Worth International Airport
- Louisville International Airport
- Honolulu International Airport
- Kahului Airport
- Saipan International Airport
- Benjamin Taisacan Manglona International Airport
- Huntsville International Airport
- Daytona Beach International Airport
- Mobile Downtown Airport
- San Antonio International Airport
- South Bend International Airport
- John Glenn Columbus International Airport
- Norfolk Naval Station
- John Wayne Airport-Orange County
- Yuma International Airport
- Richmond International Airport
- Fort Lauderdale/Hollywood International Airport
- Memphis International Airport
- Chicago O'Hare International Airport
- Tucson International Airport
- El Paso International Airport
- Luis Munoz Marin International Airport
- Norfolk International Airport
- Nashville International Airport

Why NV5 Geospatial?

NV5 Geospatial is the geospatial pioneer pushing the boundaries of data and analytics to transform the way our clients use and value geospatial data.

We lead the nation as the only end-to-end geospatial solutions provider with the capabilities to deliver the highest quality data and geographical insights.

We combine unmatched expertise and experience with the latest technology and proprietary processes, and software to map and analyze all types of terrain. But we are so much more than what we measure.

We are active participants in the research community, constantly exploring new and innovative ways to solve our client's greatest challenges.

Delivering Solutions - Improving Lives

Company Locations

Remote sensing &
geospatial experts

● Anchorage

● Vancouver

● Portland

● Corvallis

● Sheboygan

● Denver

● Dulles

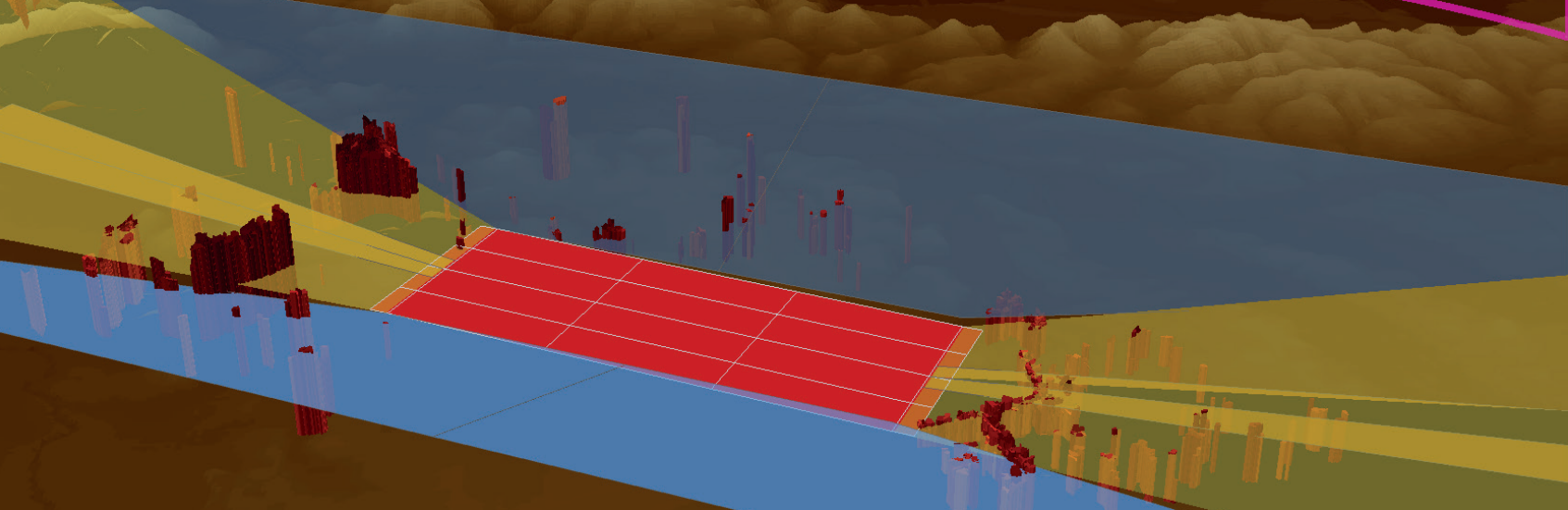
● Lexington

● Morehead City

● San Diego

● St Petersburg





Contact Us

We would like to hear from you. Reach out to us with any questions about technology, challenges in optimizing the value, or deriving the most critical answers from the data.

My Contact

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