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**ARCHITECTURE | ENGINEERING | GEOSPATIAL**

Aviation Facilities Design Services



# Beck's Hybrids Hangar

Location: Zionsville, IN (TYQ)

Size: 20,000 Sq. Ft.

Type of Use: Aircraft Storage, Aircraft Maintenance, Offices, Kitchen, Flight Planning, Sleeping Quarters

Services: Complete Architectural, Engineering, and Geospatial

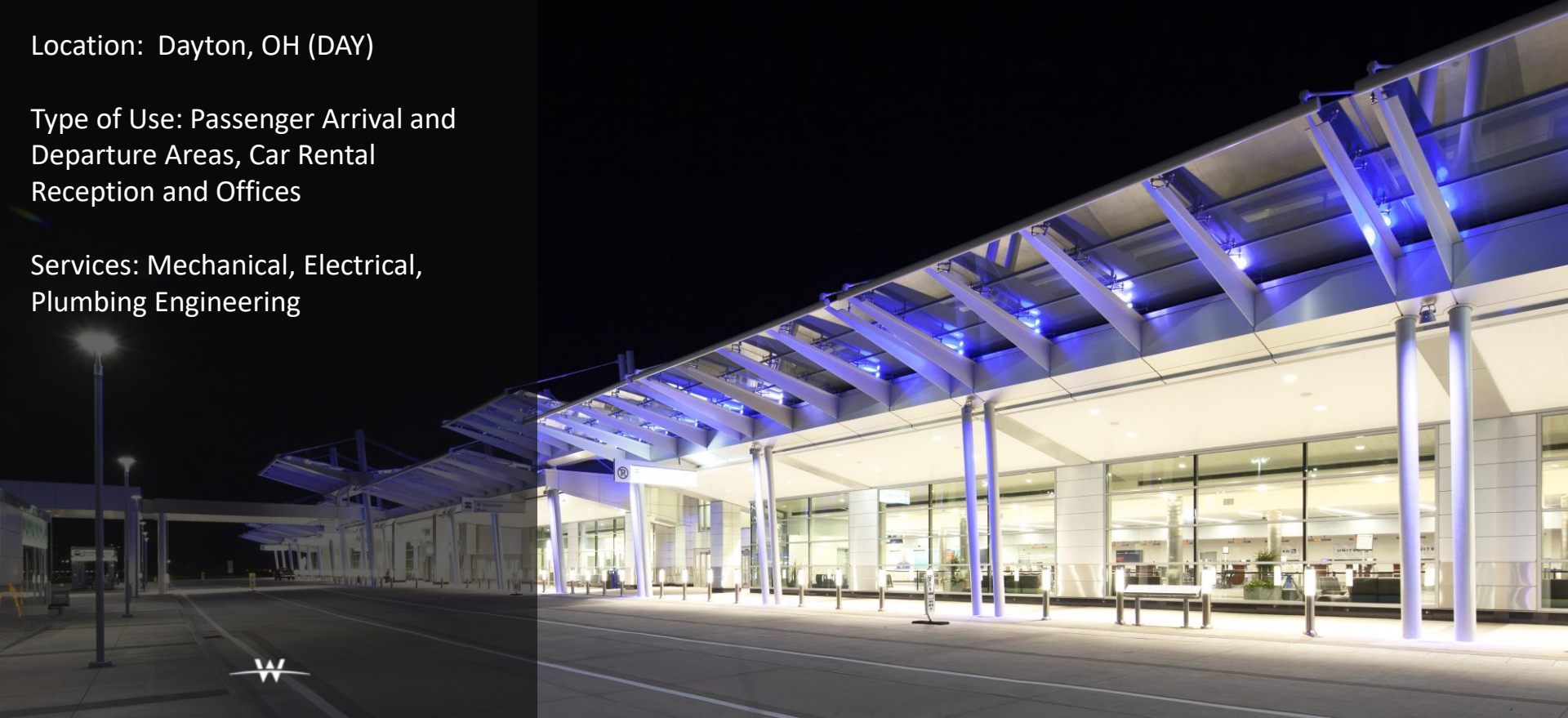


# Terminal Modernization (Phase 1)

Location: Dayton, OH (DAY)

Type of Use: Passenger Arrival and  
Departure Areas, Car Rental  
Reception and Offices

Services: Mechanical, Electrical,  
Plumbing Engineering







## Confidential, Private Corporate Hangar

Location: Cincinnati, Ohio

Size: 51,300 Sq. Ft.

Type of Use: Aircraft Storage,  
Aircraft Maintenance, Offices, Flight  
Planning

Services: Complete Architecture,  
Engineering, and Geospatial





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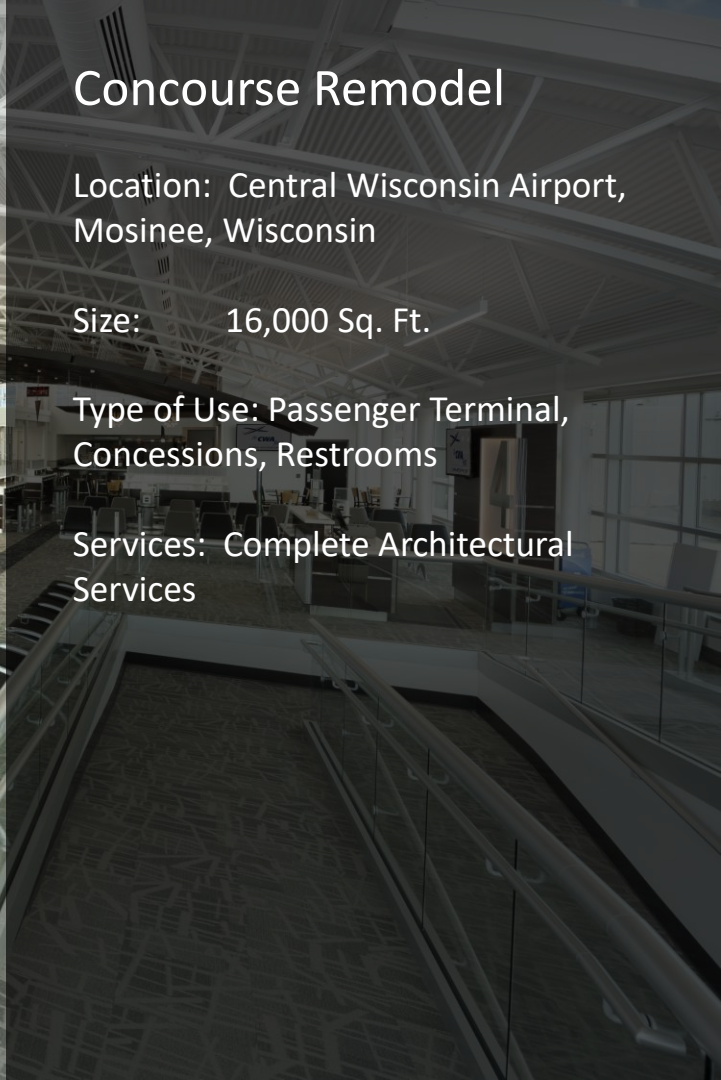
## Concourse Remodel

Location: Central Wisconsin Airport,  
Mosinee, Wisconsin

Size: 16,000 Sq. Ft.

Type of Use: Passenger Terminal,  
Concessions, Restrooms

Services: Complete Architectural  
Services





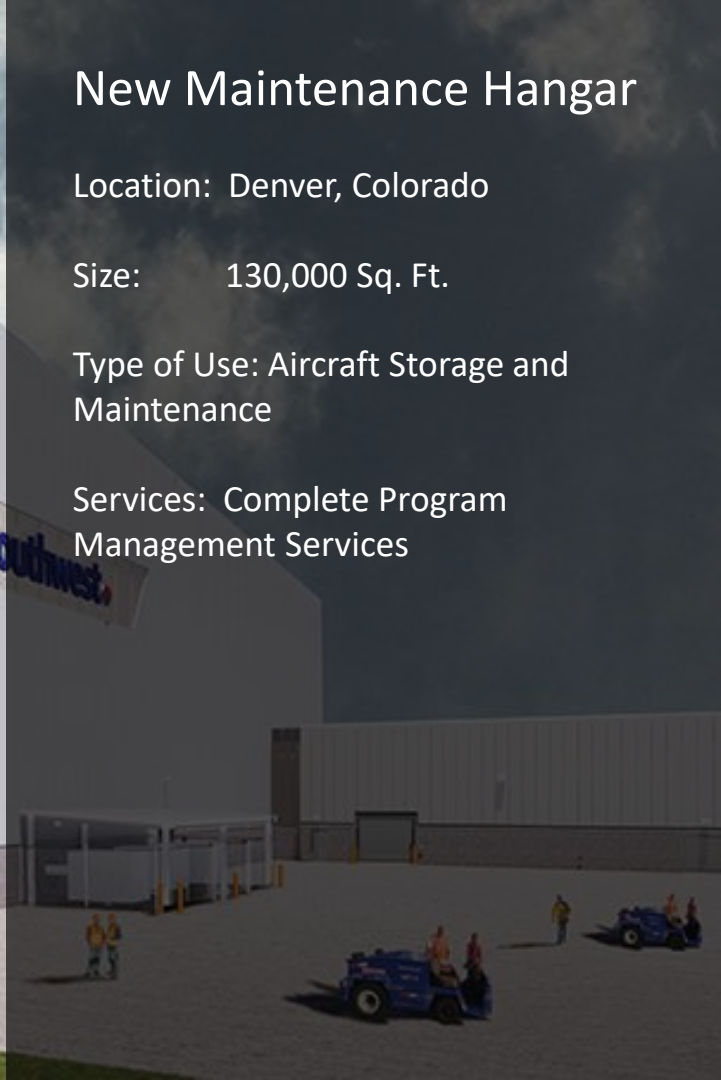
# New Maintenance Hangar

Location: Denver, Colorado

Size: 130,000 Sq. Ft.

Type of Use: Aircraft Storage and Maintenance

Services: Complete Program Management Services







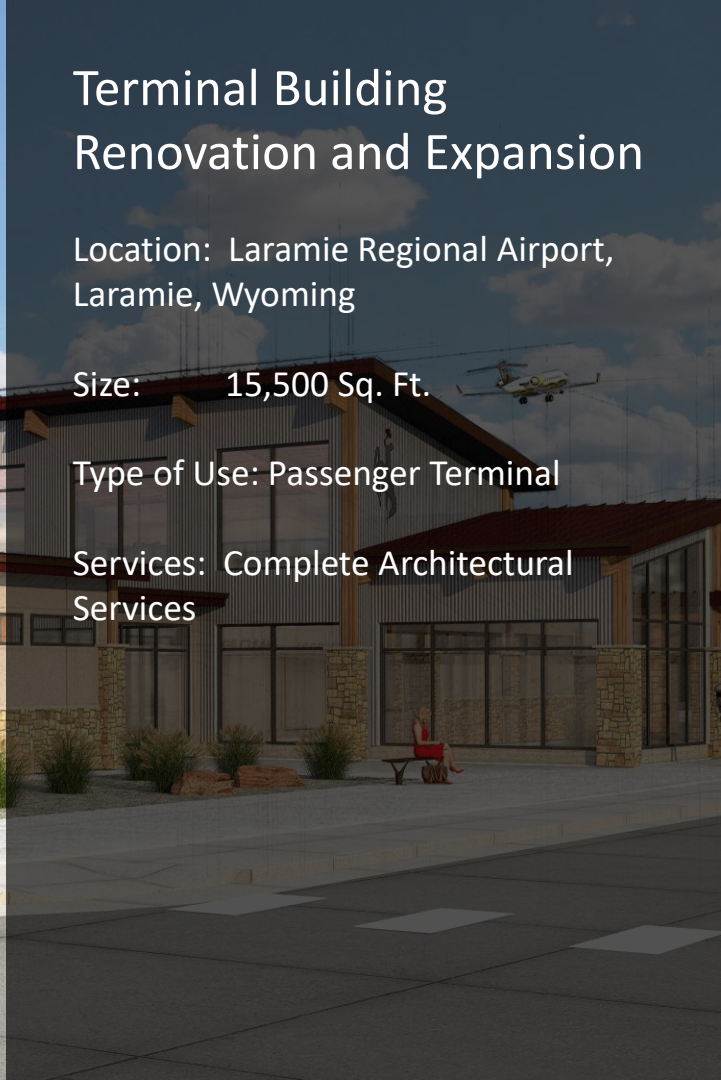
# Terminal Building Renovation and Expansion

Location: Laramie Regional Airport,  
Laramie, Wyoming

Size: 15,500 Sq. Ft.

Type of Use: Passenger Terminal

Services: Complete Architectural  
Services







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# Runway Rehabilitation

Location: Pago Pago International Airport, American Samoa

Woolpert has been tasked with the development of rehabilitation plans for Runway 5-23, the only runway capable of handling international flights.

- Survey
- Geotechnical Investigation
- Design and Bidding
- Construction Management Support







# Runway 5L-23R and Taxiway Reconstruction; Taxiway N Extension and Realignment – Preliminary Design

Location: Indianapolis International Airport, Indianapolis, IN

Runway 5R and Taxiway D were experiencing unusual pavement distress and a rapidly declining Pavement Condition Index. Study evaluated existing and new aircraft fleet mixes and pavement repair alternatives.

- Survey (GPS/Mobile Lidar)
- Airport permitting
- Storm-sewer investigations
- Design standard compliance evaluation
- Project management and funding support







# Runway Extension

Location: Paoli Municipal Airport,  
Paoli, IN

Woolpert recently completed construction of a Vegetated MSE Wall to facilitate a runway extension. We led the project from initial alternatives and consequences to final design and construction.

- Site and Hydrographic Surveys
- Subsurface Exploration
- Project Base Mapping
- Environmental Assessment
- Alternatives Analysis
- Conceptual Design
- Structural and Airfield Design
- Aeronautical Survey
- Construction Oversight







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# Air Carrier Apron Reconstruction

Location: Eagle County Regional  
Airport, Gypsum, Colorado

Rehabilitation of over 120,000 square  
yards of the concrete air carrier  
apron. This project has won multiple  
awards.

- Civil Design
- Electrical Design
- Bidding
- Construction Management





# Taxiway Hotspot Improvements

Location: Paine Field, Snohomish County, Washington

Aviation designed and implemented the safety improvements developed in the intersection study for Hot Spots 1 and 2.

- Survey
- Environmental Planning
- Utility Investigation
- Pavement Design
- Drainage Modeling and Storm Sewer Design
- Lighting and Signage





# Runway 17/35 Complex Rehabilitation

Location: Salt Lake City International Airport, Salt Lake City, Utah

Aviation provided design and construction administration services for the rehabilitation of the 9,600-foot long Runway 17/35, including paved shoulders and Taxiways P and R.

- Pavement Design
- Utility Coordination
- Construction Phasing
- Stakeholder/Tenant Coordination
- Construction Administration





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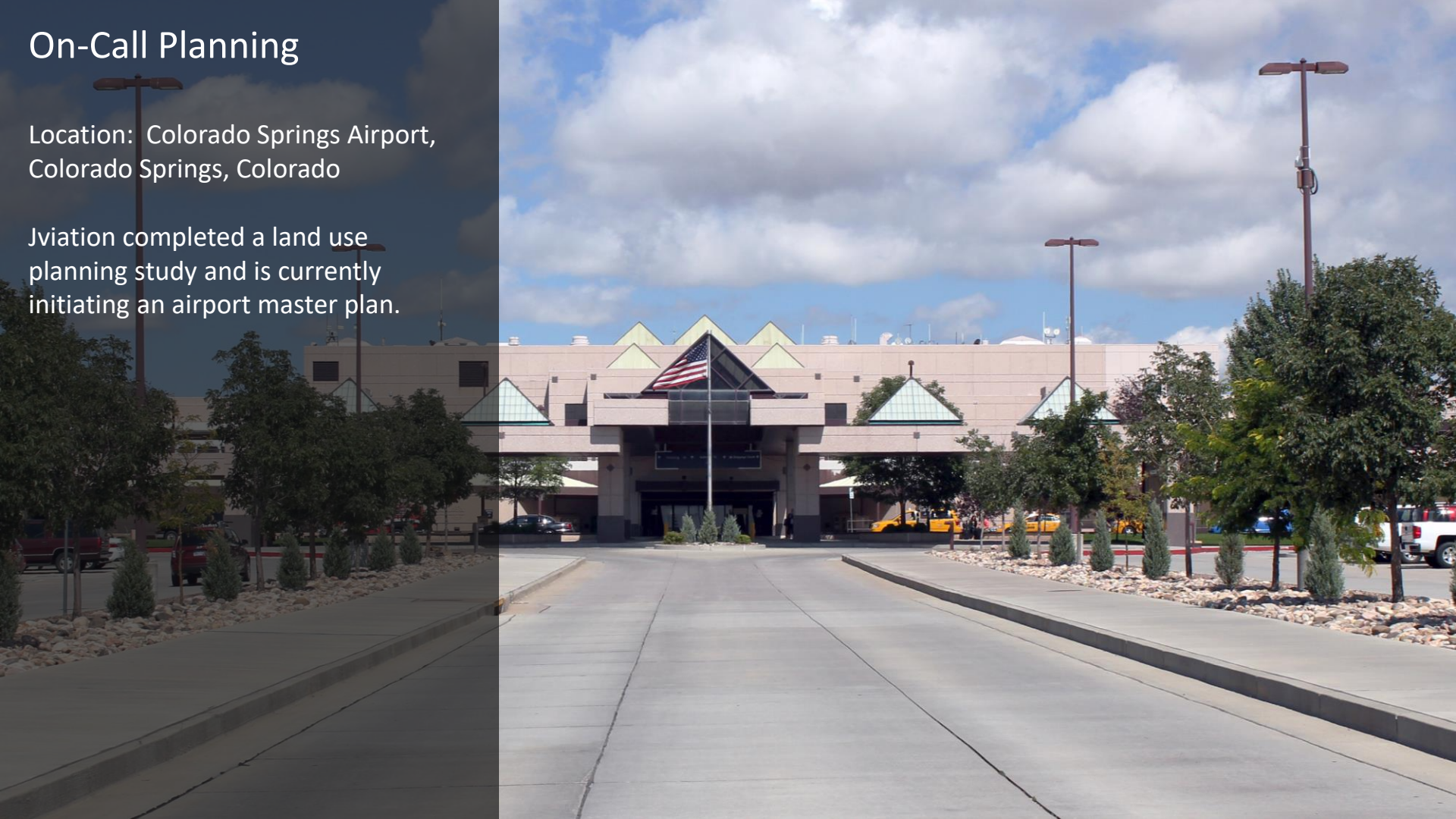
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Aviation Planning Services

# On-Call Planning

Location: Colorado Springs Airport,  
Colorado Springs, Colorado

Aviation completed a land use  
planning study and is currently  
initiating an airport master plan.







# Terminal Development Environmental Assessment

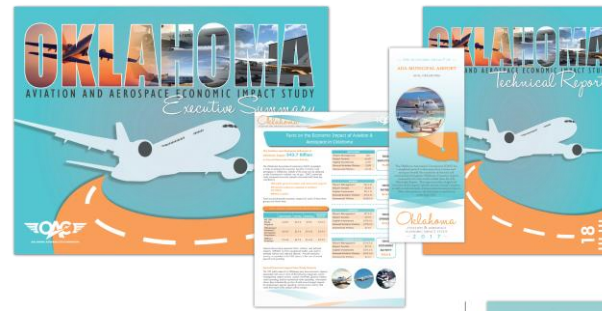
Location: Durango-La Plata County  
Regional Airport, Durango, Colorado

The Environmental Assessment  
evaluated potential impacts associated  
with the proposed terminal as identified  
and studied in the 2016 Master Plan.



# Statewide System Planning and Economic Impact Studies

- Alabama Aviation Bureau
- Iowa Department of Transportation
- Oklahoma Aeronautics Commission
- South Carolina Aeronautics Commission
- Georgia Department of Transportation
- Missouri Department of Transportation, Aviation Section
- North Dakota Aeronautics
- Mid-America Regional Council
- Utah Department of Transportation
- Wyoming Department of Aeronautics







# Obstruction Mitigation Plan and Aeronautical Study

Location: Lake Tahoe Airport, South  
Lake Tahoe, California

Aviation was selected to determine an appropriate phasing and prioritization for easement acquisition and clearing of the identified obstructions. Due to the complex mountainous terrain and extensive vegetation, our task was to articulate the complex interactions between flight procedures, airspace surfaces, and costs for an enhanced narrative that explained the priorities and helped the ADO and the Airport combine to build a funding plan.

# Conceptual Area Plan

Location: Jackson Hole Airport,  
Jackson Hole, Wyoming

The Airport's location within the Grand Teton National Park presents unique challenges for meeting the evolving needs of the Airport's aviation users and businesses. The Conceptual Area Plan's goal was to determine the highest and best use of the limited space within the Development Sub-Zone, while finding a balance to accommodate the future needs of commercial service and general aviation activity at the airport.







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# Electronic Airport Layout Plan (eALP) and GIS Implementation

Location: BFI, BOS, DEN, DTW, FAI, MDW, MSP, PDX, PHX, SFO, TUL

The nation's leader in preparing eALP documents, we do so much more with the data including building robust CAD/GIS systems and standards, integrating with BIM, building 2D/3D interactive maps, and conducting airspace analysis.





# UAS Operational Integration

Location: Savannah/Hilton Head International Airport, Savannah, GA

Woolpert collaborated with SAV's airport operations team and FAA Air Traffic Control to help SAV establish a formal and fundable UAS program for airfield and airport inspections.

- Concepts of operations (CONOPs)
- FAA authorizations/waivers
- Public relations support
- Standard operating procedures
- Technology recommendations
- Training and safety education



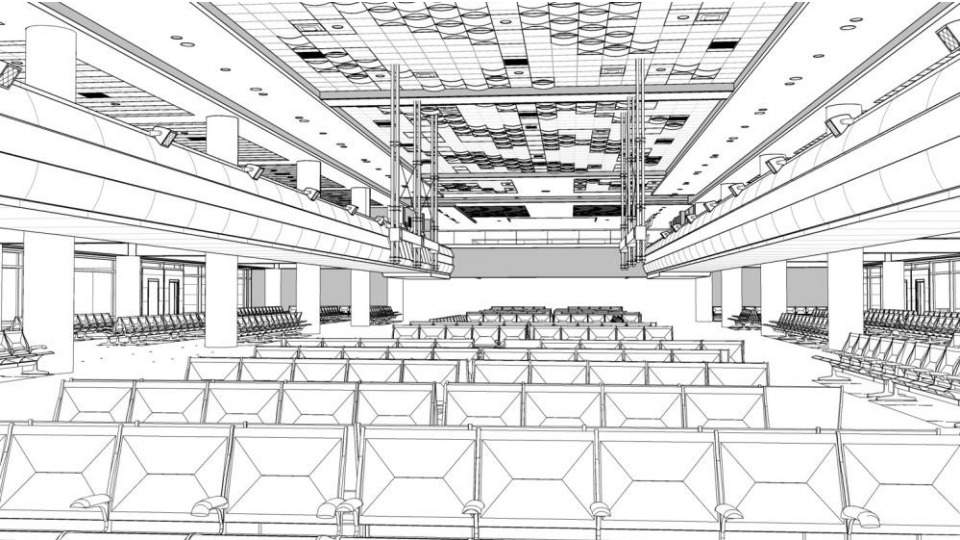
# Smart Runway

Location: US Army Corps of Engineers  
Research and Development Center

- Real-time data about stresses on flexible pavements
- Wireless data transmission (Internet of Things)
- 24/7/365 data collection and monitoring
- Custom, web-based dashboard and tools
- Accurate picture of conditions and impact







## Scan to BIM

Location: Denver International Airport, Denver, CO

Woolpert provided lidar scanning and Building Information Modeling (BIM) development at DEN. The survey information collected during this project was utilized to assist in BIM development to support the expansion of the Concourse A.

- Geodetic Control Survey
- Lidar Scanning
- Building Information Modeling (BIM)

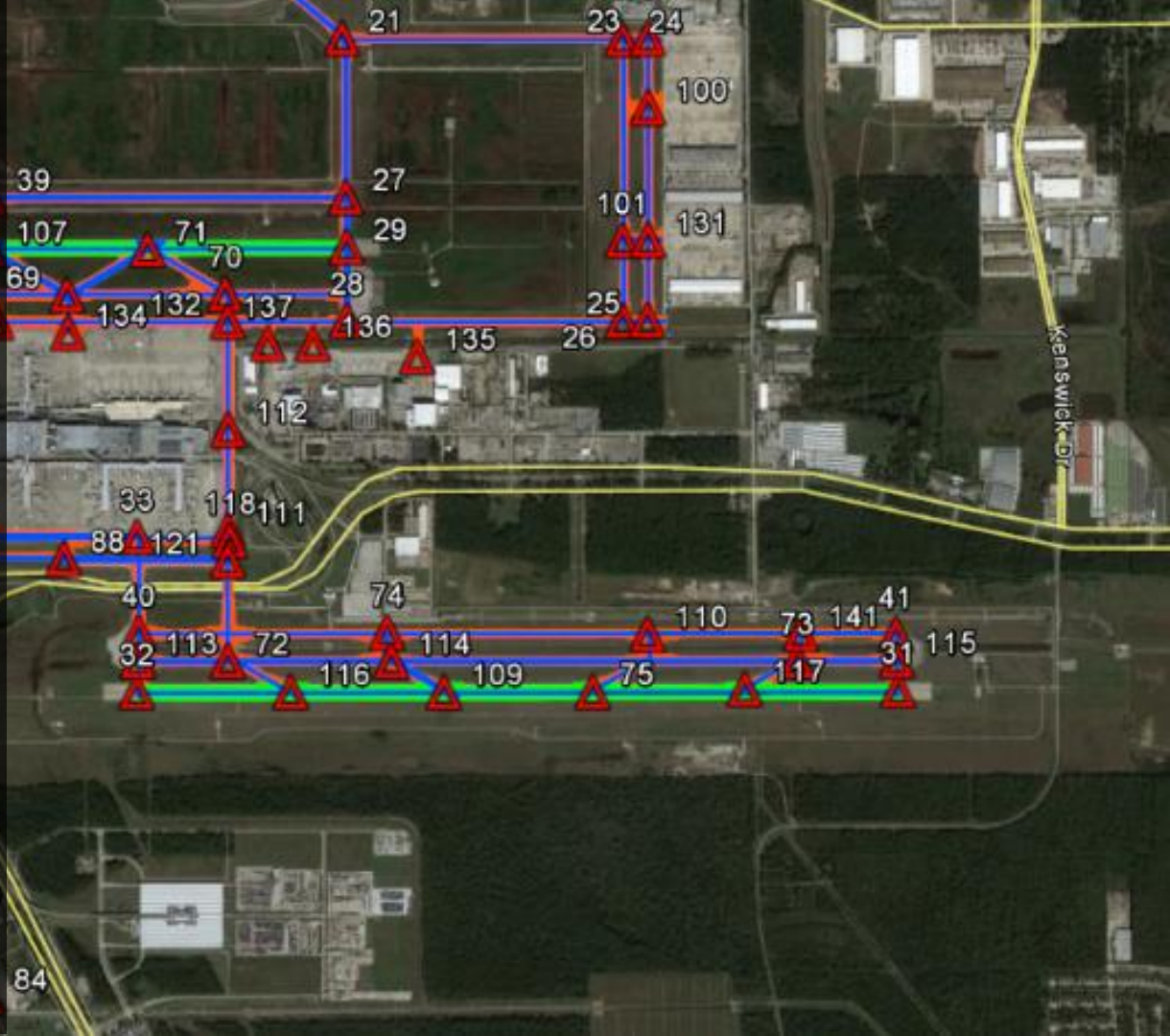


# Airport Pavement Assessments

Location: Houston Airport Systems,  
Houston, TX

Woolpert integrated mobile scanning and other technologies with the Houston Airport System to create one of the largest airfield mobile mapping databases in the country.

- 22M square feet of pavement studied
- Acquired in 12 days at IAH working between aircraft operations
- Pavement Condition Indexing (PCI) developed for runway/taxiways with 100% reporting
- Pavement striping and airfield lighting assessment with lifecycle repair recommendations from data







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# Sanitary Sewer and Stormwater Evaluation

Location: Hartsfield–Jackson Atlanta  
International Airport, Atlanta, GA

Sewer Condition Assessment and  
Mapping

Sewer Master Planning and Modeling  
Terminal Stormwater Condition  
Assessment and Modeling

- Condition Assessments
- Survey
- Hydraulic Modeling
- Planning

  
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# Runway Rehab and Approach CCTV

Location: Indianapolis International Airport, Indianapolis, IN

Runway 5R-23L Rehab (Part A)  
Runway 32 approach CCTV

- Condition Assessments
- Planning
- Rehab Design







# Stormwater Pollution Prevention Plan Update

Location: Greenville Downtown Airport, Greenville, SC

- Condition Assessments
- Hydraulic Modeling
- Stormwater Planning







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Aviation Strategic Consulting Services



A large, three-dimensional sign for CVG (Cincinnati Northern Kentucky International Airport) is mounted on a white wall. The letters 'CVG' are blue, and a green checkmark is superimposed over the 'V'. The sign is set against a clear blue sky, with green trees and orange flowers visible in the background.

# Strategic Asset Management Program

Location: Cincinnati Northern Kentucky International Airport, Covington, KY

- Asset Management Maturity Assessment
- Asset Management Framework
- Asset Management Plan
- CMMS Support
- On-Call Asset Management Condition Assessments
- Passenger Boarding Bridge Assessment







# Strategic Asset Management Program

Location: Seattle-Tacoma  
International Airport, Seattle, WA

- Evaluation of Existing Integrated Systems/Processes
- Evaluate, Improve/Develop, and Implement Enterprise Asset Hierarchies
- Complete Asset Inventory and Condition Assessment
- Update CMMS System
- PeopleSoft/Maximo Integration/GIS Integration/BIM Integration
- Introductory and Ongoing Asset Management Training





# Master/Terminal Planning

Location: Port Authority of New York and New Jersey, New York, NY

Woolpert is performing airport master planning and terminal planning support for three FAA Core 30 airports (Newark Liberty, LaGuardia and John F. Kennedy). We are developing airport planning and design standards for the five PANYNJ airports and rail connections, representing PANYNJ interests in stakeholder discussions, and benchmarking global airport planning and design best practices.



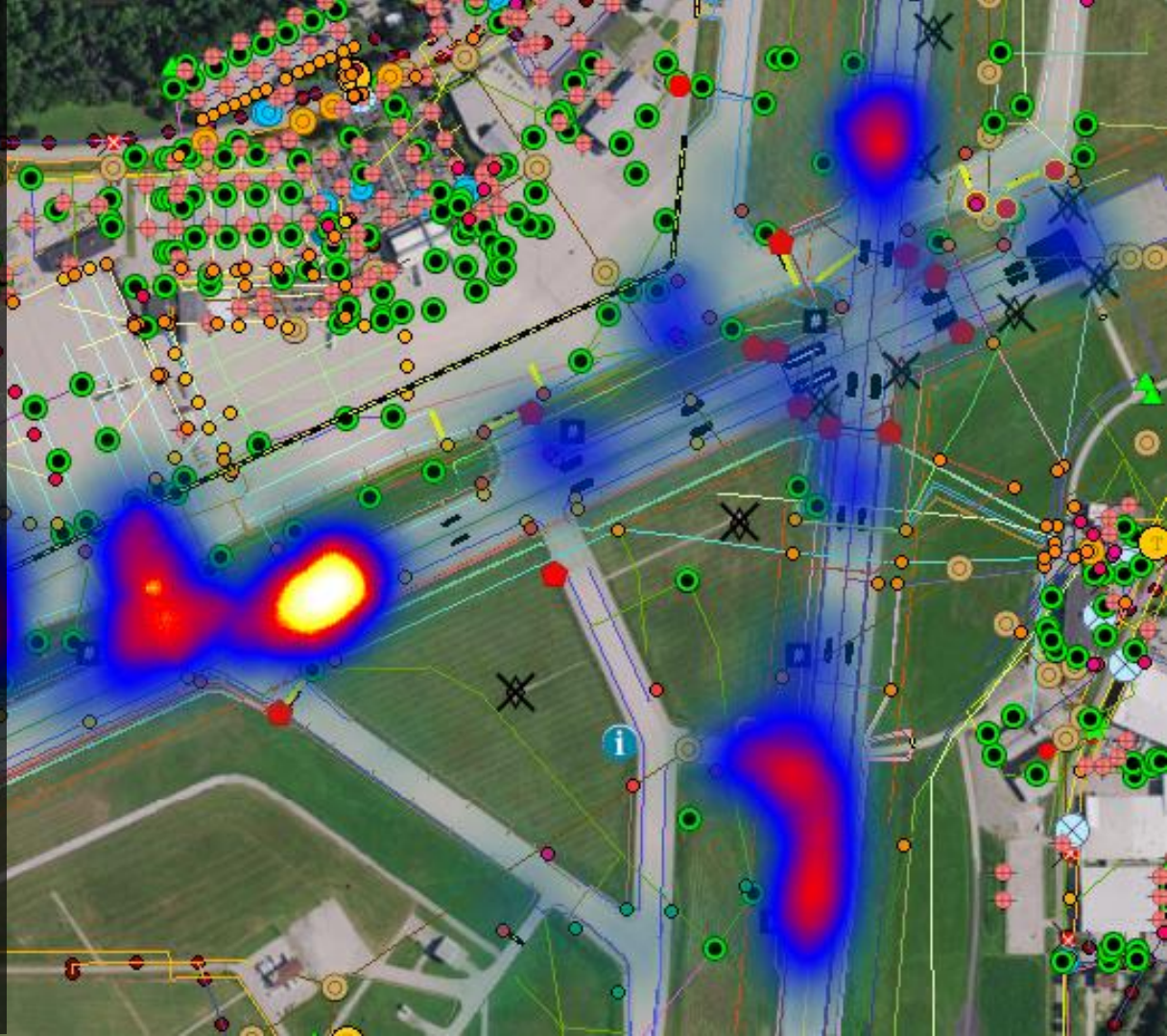


# GIS and Asset Management System Implementation

Location: CMH, ORD, PHX, RFD, SAV

Woolpert's GIS and Cityworks Airport Management System (AMS) is custom designed to meet the needs of each airport.

- Realtime information
- Data collection
- Airfield maintenance hot-spotting
- Facility condition assessments and management reporting
- Vehicle tracking and maintenance
- Part 139 inspection reporting





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# Training Program Development

Organization: National Association of  
State Aviation Officials

Jviation served as the prime consultant in  
the development of a formalized training  
program for the NASAO membership.

The online courses are defined by seven  
primary modules under which various  
topics are explored. The seven modules are:

- 1 – Being Aware of the Airport Environment
- 2 – Appreciating Key Partners
- 3 – Aviation Planning 101
- 4 – Environmental Planning 101
- 5 – Engineering 101
- 6 – Essentials of Project Funding
- 7 – 1-800-Citizen Hotline

## NASAO TRAINING PROGRAM





## Strategic Planning and Leadership Training

Location: Clark County Department of Airports, Clark County, Nevada

Jviation assisted the Department of Airports with the strategic planning. In addition, Jviation has developed the training curriculum and is facilitating the Flight 1 Leadership and Supervisory Training Program.







## On-Call Airspace Consulting

Location: Friedman Memorial Airport,  
Hailey, Idaho

Jviation has been providing airspace and  
air traffic control planning services to  
the airport.

