Criteria 1: Qualifications/Expertise of Team

A. Proposed Team

Kimley-Horn has assembled a highly-qualified, widely-recognized, and well-established team that will work together seamlessly with the Washington State Department of Transportation (WSDOT) to produce a successful Washington Aviation System Plan (WASP). Led by Kimley-Horn, our team is comprised of individuals with extensive histories of working together from several firms, all of whom contribute unique types of expertise necessary to complete the full scope of services. Each firm's role, types of expertise offered, and length of time providing expertise are highlighted below, as well as firms that are Disadvantaged Business Enterprise (DBE)-certified. Our organization chart, included as Chart 1 on page 2, illustrates our team.

### Kimley-Horn

**Firm Role:** Prime, Aviation System Planning Lead, Environmental Review, Airspace, Intermodal Integration, and Airport Information System (AIS)

**Types of Expertise:** Aviation System Planning, Economic Analysis, Data Management, Airspace Analysis, Geographic Information Systems (GIS), Transportation Planning and Engineering, and Aviation Design

**Length of Time Providing Expertise:** 33 years

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### Ricondo & Associates, Inc. (Ricondo)

**Firm Role:** Site Selection Lead, Commercial Passenger Services, Air Cargo, Airport Facility Needs, and System Alternatives

**Types of Expertise:** Aviation Planning, Business/Financial Management, Noise Analysis, Site Selection, Air Service Analysis, Air Cargo Planning, Master Planning, and Environmental Planning

**Length of Time Providing Expertise:** 32 years

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### Hovecon, LLC (Hovecon)

**Firm Role:** Emerging Issues, Urban Air Mobility (UAM), and Electric Vertical Takeoff and Landing (eVTOL)

**Types of Expertise:** Autonomous Aerial Transportation Planning Development/Regulation/Policy/Infrastructure (Unmanned Aircraft System [UAS], UAM, Unmanned Traffic Management [UTM])

**Length of Time Providing Expertise:** 10 years

---

### Synergy Consultants, Inc. (Synergy)

**Firm Role:** Sustainability Lead

**Types of Expertise:** Aviation Sustainability Management, Environmental Planning, and National Environmental Policy Act (NEPA)

**Length of Time Providing Expertise:** 26 years

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### Marr Arnold Planning, LLC (MAP)

**Firm Role:** Forecasts and Facility Requirements

**Types of Expertise:** System Planning, Forecasting, Airport Master Planning, and Business Planning

**Length of Time Providing Expertise:** 10 years

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### Connico, Inc. (Connico)

**Firm Role:** Implementation Planning and Cost Estimating

**Types of Expertise:** Cost Estimating, Scheduling/Phasing, Constructability Planning, and Value Analysis

**Length of Time Providing Expertise:** 30 years

---

### Cascadia Consulting Group (Cascadia)

**Firm Role:** Sustainability

**Types of Expertise:** Sustainability (Climate Change Mitigation and Adaptation, Energy Efficiency, Renewable Energy)

**Length of Time Providing Expertise:** 28 years

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### Century West Engineering (CWE)

**Firm Role:** Inventory

**Types of Expertise:** Airport Master Planning, Airport Fuel Facilities, and Land Use Planning

**Length of Time Providing Expertise:** 46 years

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*DBE-certified*
Chart 1 – Organization Chart

**Key Staff**
- **Principal-in-Charge**: Pam Keidel-Adams
- **Project Manager**: David Williams, P.E.
- **Quality Manager**: Zach DeVeau, AICP

**Stakeholders**
- Commercial Aviation Coordinating Commission (CACC)
- Federal Aviation Administration (FAA)
- Puget Sound Regional Council (PSRC)
- Technical Advisory Committee (TAC)
- Local Agencies
- Tribal Nations
- General Public

**Outreach Team**
- Strategic Leadership: Rita Brogan (Brogan LLC)
- Public Outreach: Lynsey Burgess (PRR)

**Subconsultants**
1. **Ricondo & Associates, Inc.** – Site Selection, Commercial Passenger Services, Air Cargo, and Facility Needs/System Alternatives
2. **Hovecon, LLC** – Emerging Issues/UAM/eVOTL
3. **Synergy Consultants, Inc.** – Sustainability Framework
4. **Marr Arnold Planning (DBE)** – Forecasts/Facility Requirements
5. **Connico, Inc. (DBE)** – Implementation Plan/Cost Estimating
6. **Cascadia Consulting Group (DBE)** – Sustainability
7. **Century West Engineering** – Inventory

---

**Inventory**
- Tom Gibson, CM
- Patrick Heaton, CM
- Samantha Peterson
- Trevor Klatko, CM, EIT

**Site Selection Alternatives**
- Laura Holthus
- Tom Schnetzer
- Andrew Scanlon
- Paul Hanly

**Airspace**
- Elizabeth McQueen
- Mike Yablonski

**Sustainability**
- Mary Vigilante
- Christy Shelton

**Financial Review**
- Bryan Elliott, AAE
- Jason Apt, CM

**Forecasts**
- Kathryn Born, E.I.
  - Pam Keidel-Adams
  - Summer Marr

**Emerging Issues**
- Catherine Woodwell
- Brian Gulliver
- Basil Yap
- David Williams, P.E.

**Intermodal Integration**
- Dan Harris, AICP
- Paul Danielson, P.E.
- Adam Dankberg

**Classification System/Metrics**
- Regan Schnug, AICP
  - Catherine Woodwell
  - Erin Sheelen, AICP

**Facility Needs**
- Erin Sheelen, AICP
- ACE
- PMP

**Commercial Passenger Service**
- Jeffrey Stanley
- Tom Schnetzer

**Implementation Plan**
- David Williams, P.E.
- Andrew Scanlon

**System Alternatives**
- Catherine Woodwell
- Patrick Heaton, CM
- Laura Holthus

**Air Cargo**
- Ken Bukauskas
- Andrew Scanlon

**Cost Estimating**
- David Hunley, P.E.

**Cost Estimating**
- David Hunley, P.E.

**Environmental Constraints Review**
- Heidi Rous, CPP
- Teresa Gresham, P.E.
- Stephen Culberson
- Jennifer Simpkins

**NPIAS Review**
- Regan Schnug, AICP
- Catherine Woodwell

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“[The] team in the proposal and interview is the team that did the work. They were really fun to work with. Delivered on everything!”
– David Ulane, Director of Colorado Department of Transportation Aeronautics

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WSDOT Aviation System Plan
Why Kimley-Horn?

The Kimley-Horn team was assembled to emphasize our strengths and bring the most benefits to WSDOT. Chart 2 summarizes our team’s strengths, alongside the benefits they bring WSDOT.

Chart 2 – Kimley-Horn’s Strengths and Benefits to WSDOT

<table>
<thead>
<tr>
<th>Kimley-Horn Team Strengths</th>
<th>Benefits to WSDOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed, local senior Project Manager with a depth of aviation analyses experience in Washington and the Seattle region</td>
<td>Easy access to a West Coast-based team led by a local Project Manager who knows how to work with WSDOT</td>
</tr>
<tr>
<td>Expertise in large-scale analysis of capacity-constrained facilities including site selection studies that addressed multiple airport system options</td>
<td>Extensive lessons learned gained from working on site selection studies and in multi-airport systems to deliver real-world, feasible results for the WASP</td>
</tr>
<tr>
<td>Most experienced aviation system planning team members in the industry, including prior work on the last WASP and Washington Aviation Economic Impact Study (AEIS)</td>
<td>Pre-established understanding of where the WASP can be enhanced and efficiencies achieved from first-hand experience</td>
</tr>
<tr>
<td>Recognized, national leaders in aviation sustainability, UAS/Unmanned Aerial Vehicle (UAV), urban/regional air mobility, and new aviation technologies, including prior work on the Washington Electric Aircraft Feasibility Study</td>
<td>Provides knowledge of latest global trends, impacts, and opportunities in emerging aeronautics</td>
</tr>
<tr>
<td>Established relationships with key stakeholders such as the FAA, PSRC, Washington airports, and national and state industry leaders</td>
<td>Gives WSDOT the ability to leverage existing relationships and knowledge of the “history” of differing perspectives</td>
</tr>
<tr>
<td>Team with the capability and expertise to deliver the project on time—including the information needed for the CACC on the legislative schedule</td>
<td>Instills confidence that CACC deadlines will be achieved with strong technical analysis by an experienced and deep team bench</td>
</tr>
<tr>
<td>Our team provides meaningful roles for DBE-certified firms, allowing us to meet and exceed WSDOT’s DBE goals</td>
<td>Exceeds minimum requirements and provides opportunities for diversity and inclusion</td>
</tr>
</tbody>
</table>

B. Offices within Washington

Chart 3, top right, identifies the offices our team has within the Washington State and the Greater Portland Metropolitan Area, including the total number of employees and expertise available at each location.

Chart 3 – Offices, Employees, and Available Expertise

<table>
<thead>
<tr>
<th>Firm</th>
<th>Location / Number of Employees</th>
<th>Expertise Available at Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kimley-Horn</td>
<td>Seattle, WA / 31</td>
<td>Aviation System Planning, Economic Analysis, Data Management, Airspace Analysis, GIS, Transportation Planning and Engineering, Aviation Design</td>
</tr>
<tr>
<td>Ricondo</td>
<td>Bellevue, WA / 4</td>
<td>Aviation Planning and Site Selection</td>
</tr>
<tr>
<td>Synergy</td>
<td>Seattle, WA / 1</td>
<td>Aviation Sustainability Management, Environmental Planning, and NEPA</td>
</tr>
<tr>
<td>Cascadia</td>
<td>Seattle, WA / 45</td>
<td>Sustainability (Climate Change Mitigation and Adaptation, Energy Efficiency, Renewable Energy)</td>
</tr>
<tr>
<td>CWE</td>
<td>Bothell, WA / 4, Federal Way, WA / 3, Ellensburg, WA / 2, Spokane, WA / 13, Portland, OR / 28</td>
<td>Aviation and Electrical Engineering, Aviation Engineering, Airport Planning, Aviation Engineering and Airport Planning</td>
</tr>
</tbody>
</table>

C. Similar Projects with Subconsultants

Kimley-Horn has a strong history of partnering with many of our subconsultants for the WASP. Chart 4 highlights similar projects we have worked on together within the last three years.

Chart 4 – Similar Projects with Subconsultants

<table>
<thead>
<tr>
<th>Subconsultant</th>
<th>Project Name – Subconsultant’s Role</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ricondo</td>
<td>Metropolitan Washington Airports Authority (MWAA), On-Call Planning Services – Prime Consultant</td>
<td>2017 – Ongoing</td>
</tr>
<tr>
<td>Synergy</td>
<td>Pitkin County, Program Management Services for the Aspen/Pitkin County Airport (ASE) Capital Improvement Project – Vision Process Air Quality and Noise Support/Subconsultant</td>
<td>2018 – 2019</td>
</tr>
<tr>
<td>MAP</td>
<td>Idaho Transportation Department (ITD) Division of Aeronautics, Idaho Airport System Plan (IASP) and AEIS – Airport Economic Impact Support, Multimodal Transportation Analysis</td>
<td>2018 – 2020</td>
</tr>
<tr>
<td>Connico</td>
<td>Tennessee DOT (TDOT), Aviation System Plan and Economic Impact Study – Cost Estimating</td>
<td>2020 – 2021</td>
</tr>
<tr>
<td>CWE</td>
<td>King County International Airport-Boeing Field (KCIA), Large Aircraft Parking Apron – Inventory Support (project with Project Manager David Williams)</td>
<td>2019 – Ongoing</td>
</tr>
</tbody>
</table>
D. Availability of Key Staff and Resources

At Kimley-Horn, we understand that technical expertise alone is not enough—our team members must also have the time to devote to your project for their expertise to be of value to you. **Chart 5** shows the availability of our key staff identified as hours available per month.

**Chart 5 – Availability of Key Staff**

<table>
<thead>
<tr>
<th>Key Staff</th>
<th>Hours Available per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Williams</td>
<td>80</td>
</tr>
<tr>
<td>Pam Keidel-Adams</td>
<td>80</td>
</tr>
<tr>
<td>Regan Schnug</td>
<td>60</td>
</tr>
<tr>
<td>Joseph Huy (Ricondo)</td>
<td>40</td>
</tr>
<tr>
<td>Mary Vigilante (Synergy)</td>
<td>20</td>
</tr>
<tr>
<td>Heidi Rous</td>
<td>40</td>
</tr>
</tbody>
</table>

The Kimley-Horn team has conducted system planning in 43 states and led and supported over 70% of the airport site selection projects in the U.S. in the past 25 years.

E. Similar Projects

A skilled consultant understands that each project is unique and deserves a tailored approach to address client needs. **Our project team has substantial experience in the specialty fields of statewide system planning, community outreach, policy development, site selection, and other related studies to evaluate and promote statewide aviation systems.** We have provided a brief sample of our team’s most relevant projects on pages 5-7, all from within the last three years. **Chart 6** is a team project experience matrix further demonstrating the several relevant projects completed by members of the team.

**Chart 6 – Additional Team Project Experience**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Client</th>
<th>State System Development</th>
<th>Airport Site Selection Study</th>
<th>Environmental Review</th>
<th>Community Outreach</th>
<th>Emerging Issues</th>
<th>FAA Funding/Coordination</th>
<th>Implementation Strategies</th>
<th>Policy Development</th>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona State Aviation System Plan (SASP)</td>
<td>Arizona DOT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IASP and AEIS</td>
<td>ITD Division of Aeronautics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Illinois SASP and AEIS</td>
<td>Illinois DOT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Tennessee SASP and AEIS</td>
<td>Tennessee DOT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Florida On-Call System Planning</td>
<td>Florida DOT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>San Diego International Airport (SDCRAA) Site Selection Program</td>
<td>SDCRAA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Renton Sustainability Management Plan</td>
<td>Renton Municipal Airport (RNT)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ASE Program Management</td>
<td>Pitkin County</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
The MnSASP encompasses 133 publicly-owned, public-use airports including nine commercial service (CS) facilities and a diverse network of 124 general aviation (GA) facilities. These airports are supported by the MnDOT Office of Aeronautics (MnDOT Aeronautics). MnDOT Aeronautics initiated the MnSASP in 2017 through an extensive stakeholder engagement process known as Phase I. Phase I established the vision and goals for the state aviation system and identified key state policy issues affecting MnDOT Aeronautics, airports, and the air traveling public.

Kimley-Horn initiated Phase II of the MnSASP in late 2020, designed to assess current and future performance and develop recommendations and guidance on the policy issues identified during Phase I. The MnSASP policy issues being addressed by Kimley-Horn include operations counting and forecasting at non-towered airports; multimodal connectivity; and state policies regarding through-the-fence operations, system airport closure and system entry, airport compatible land use and zoning, state-owned navigational aids (NAVAIDs), the prioritization of funding for crosswind runways, and support for revenue-producing projects at airports. Kimley-Horn is partnering with MnDOT Aeronautics to comprehensively assess and enhance state investment into aviation in Minnesota. As a forward-looking plan, Kimley-Horn is also working with MnDOT Aeronautics, airports, and Minnesota communities to prepare for the deployment of emerging aviation technologies including electric aircraft and advanced air mobility (AAM). The MnSASP will deliver targeted guidance focusing on near-term action steps to support the safe and seamless integration of new technologies into the existing Minnesota airspace system.

The MnSASP Phase II project includes the use of multiple working groups to obtain input on key issues such as state funding for airports, crosswind runways, GA operations counting and forecasts, and airport closures.

The MnSASP established targets to evaluate the performance of airports within the state aviation system relative to five objectives, each of which represents a focus area under the overarching aviation vision. Performance targets identify areas where the system is performing well and help MnDOT Aeronautics prioritize areas for improvement at the statewide level.

Use the dashboards below to check the progress on the primary measures/indicators for each objective of the MnSASP.

**System Performance**

*System Shown: Duluth Sky Harbor Airport (DYT)*

The MnSASP established targets to evaluate the performance of airports within the state aviation system relative to five objectives, each of which represents a focus area under the overarching aviation vision. Performance targets identify areas where the system is performing well and help MnDOT Aeronautics prioritize areas for improvement at the statewide level.

**Screen Capture of the MnSASP Display Dashboard**

Built using the ArcGIS Hub application, the Display Dashboard (a screen capture is shown above) evaluates airport and system performance against metrics established by the MnSASP. Results are presented in a user-friendly web dashboard through which users can easily toggle results to view the performance of the statewide system or specific airports, classifications, geographic planning regions, and other subsets of the system. Kimley-Horn is also providing training to ensure MnDOT Aeronautics can update the ArcGIS Hub between inventories, keeping the Display Dashboard up to date as conditions change over time.
Kimley-Horn led a comprehensive study of Colorado’s aviation system using a fresh approach to examine the system’s needs and determine its economic impact. Innovative methods of coordination and outreach during the study, analysis techniques, and presentation of results were important components of the 2020 CASP and CEIS efforts. The 2020 CASP and CEIS are two critical tools used to assist CDOT’s Division of Aeronautics as they execute their roles and responsibilities supporting the Colorado Aeronautical Board (CAB). These tools are used to support decision making as CDOT manages the statewide system, making it paramount these tools are kept up to date.

The CASP included site visits to nearly all system airports to obtain data to support the system plan and the CEIS. Colorado’s system of 66 airports includes 14 CS airports, including the large hub of Denver International Airport (DEN). A new set of airport classifications was developed along with updated performance measures and system indicators to evaluate the system’s needs. An extensive evaluation of the system’s context in terms of environmental considerations, intermodal connectivity, and a focus on specific issues affecting the Colorado aviation system were key components of the study’s analysis. Real life stories were compiled to portray unique and important activities supported by Colorado’s airports throughout the documentation.

“\textit{We had very high expectations on this project and we believe this is the best plan ever developed in over 20 years with CDOT. The new gold standard. Never was there any question that Pam, Regan, Thomas, and others were anything less than 100\% committed to the project’s success.”} – David Ulane, Director of CDOT Aeronautics

\textbf{WSDOT Aviation System Plan}
Clark County Department of Aviation (CCDOA), Southern Nevada Supplemental Airport (SNSA) Phase I Planning Services, Ivanpah Valley, NV (Ricondo)

Dates: January 2020 – Ongoing (anticipated 2023) | Cost: $1.09M

In January 2020, Ricondo was selected to provide Phase 1 Planning Services for the proposed SNSA by CCDOA. SNSA is being planned as a new CS airport to supplement the McCarran International Airport (LAS) and provide additional aviation capacity to the growing Las Vegas metropolitan area.

During the early 2000s, CCDOA recognized that LAS was landlocked and had limited area available to accommodate growing aviation demand. To plan for increased demand, CCDOA initiated planning efforts for a supplemental airport in the Ivanpah Valley. **Ricondo was heavily involved in the siting of and planning for the new airport until 2010, when the project was put on hold due to the economic recession.**

By 2018, air travel had recovered in Las Vegas and FAA and CCDOA recognized the need to re-engage SNSA planning efforts prior to FAA re-initiating the Environmental Impact Statement for the airport. **The SNSA Phase 1 Planning effort is validating several key plans previously developed for SNSA and includes new analyses needed by the FAA to conduct the Environmental Impact Statement.**

Critical Phase 1 Planning requirements include an updated Airport Layout Plan (ALP), aircraft fleet mix and aviation activity forecasts, revised project definition, purpose, and need for the project, capacity analysis of LAS, wildlife hazard assessment, Airport Traffic Control Tower siting study, ground access plan, relocation plan for high-tension power lines, hydrology study, definition of opening day infrastructure, and a financial analysis. Phase 1 is expected to be completed in 2023.

**Ricondo’s aviation planning team is augmented by a knowledgeable and experienced group of subconsultants. They bring a wide variety of expertise and skillsets to the team, including environmental planning and permitting, cost estimating and construction scheduling, geotechnical services, ground transportation planning, airfield pavement and airport platform design, and more.**
Criteria 2: Qualifications of Proposed Project Manager

DAVID WILLIAMS, P.E.

Project Manager / Data Management/Reporting / Implementation Plan / Airport Infrastructure Standards

Professional Biography

DAVID has 27 years of experience including 25 years of providing aviation consulting services throughout Washington State, leading some of the region’s most critical projects. His experience encompasses leading a wide variety of projects from system plans and master plans, to concept development and environmental reviews with State EPA (SEPA) and NEPA, to final design and construction of significant aviation infrastructure improvements. David has led airport development studies; Runway Incursion Mitigation (RIM) studies; airport engineering, stormwater, and pavement projects; Airports GIS (AGIS) surveys, and extensive community and public involvement campaigns. Over the last decade, he has successfully participated in and managed more than 25 aviation projects, leading the delivery of high-quality work completed on time and within budget. A strong project manager, David emphasizes communication and team building as critical factors in serving his clients and advocating for their needs and goals.

David’s experience and understanding of Washington State’s aviation system and the issues impacting the system is unparalleled. He led the last WASP update and has played a key role on each of the Washington State system plan updates since 1998. This has resulted in David having a deep understanding of Washington’s aviation system, issues, and opportunities. Additional pertinent studies include David’s leadership delivering the PSRC Regional Aviation Baseline Study and providing key leadership roles on the Joint Transportation Committee (JTC) Air Cargo Study, WSDOT Electric Aircraft Feasibility Study, and the WSDOT AEIS projects. Over the last five years, David has led a number of studies—pushing the boundaries of new and emerging industries including delivering the Port of Seattle’s SeaTac Biofuels Infrastructure Study, the KCIA Carbon Accreditation Program that enables KCIA to be carbon neutral in 2030, and leading the San Francisco International Airport (SFO) Sustainable Aviation Fuel Feasibility Study.

Benefits to WSDOT

- System plan continuity with leadership on WASP and previous Washington State system plans since 1998
- Direct experience leading the PSRC Regional Aviation Baseline Study and supporting the WSDOT AEIS, WSDOT Electric Aircraft Feasibility, and JTC Air Cargo studies
- Locally based with easy and timely access for WSDOT
- Strong relationships with key stakeholders
- Proven ability to deliver projects on time and within budget
- Well educated on current industry trends and has presented at over 10 conferences including WAMA, WPPA, WSCAA, and the Transportation Research Board (TRB)
A. Examples of David’s Prior Experience as Project Manager on WSDOT or Similar Projects

**WSDOT, Washington State Aviation System Plan (WASP), Statewide, WA**

**Client:** WSDOT  |  **Role:** Project Manager*  |  **Dates:** 2015 – 2017

The last WASP in 2017 included assessing the condition and performance of Washington’s aviation system of 136 public-use airports, preparing system goals, performance objectives, and measures, developing activity forecasts and system capacity; determining system requirements; developing a new airport classification system and metrics, and identifying policy recommendations. **The consultant team, consisting of the prime firm and four subconsultants, was led by David as the project manager.** David and team coordinated monthly with WSDOT staff on scope, schedule, budget, and deliverables; managed the outreach efforts related to community engagement activities and the 30+ member Technical Advisory Committee (TAC), and conducted coordination and reporting with the FAA.

A total of 17 aviation activities were woven throughout the study analysis, from developing classifications that account for the activities to the alternatives analysis, which used aviation activities as focus areas to develop airport strategies. Establishing classification criteria for a system of 136 airports was a primary issue in the study, over half of which are not included in the FAA’s National Plan of Integrated Airport Systems (NPIAS).

**Responsibilities/Tasks:** David led the consultant team including preparing and updating the scope, managing schedule and budget, leading monthly meetings, preparing monthly reports, and resolving any issues that occurred.

**Puget Sound Regional Council (PSRC), Regional Aviation Baseline Study, Seattle, WA**

**Client:** PSRC  |  **Role:** Project Manager*  |  **Dates:** 2018 – 2020

The PSRC Regional Aviation Baseline Study served as the decision-making foundation for regional leaders as they considered if the region should accommodate the growing demand for aviation, and how to do so. **As project manager, David led the consultant team in the delivery of technical analysis and scenario building and coordinated with the client, FAA, and WSDOT to ensure the project was meeting goals and expectations for each agency.** David also organized the communications team’s outreach with PSRC and key stakeholders as well as outreach and education with the public.

The study provided a clear picture of the aviation activities, forecast demand for 2050, facility needs, and options to address the demand in the Central Puget Sound region. **To address demand, development of a series of scenarios were considered to evaluate options for meeting differing levels of demand through a variety of airport expansions.** Evaluation of CS, air cargo, and GA services were all reviewed, analyzed, and reported.

**Responsibilities/Tasks:** David led the consultant team including preparing and updating the scope, managing schedule and budget, leading monthly meetings, preparing monthly reports, and resolving any issues that occurred.

*Experience prior to Kimley-Horn*
King County International Airport-Boeing Field (KCIA), On-Call Planning Services, Seattle, WA

**Client:** KCIA  |  **Role:** Project Manager*  |  **Dates:** 2019 – 2020

**King County International Airport (KBFI) Airport Carbon Accreditation Program (ACAP)**

**Work Program**

- Level 1
  - Planning
  - GHG Inventory
  - Baseline Carbon Footprint
  - Scope 1
  - Scope 2
  - Level 1 Certification
- Level 2
  - Level 1 Accreditation
  - Operational & Capital Strategies
  - Level 2 Certification
- Level 3
  - Level 2 Accreditation
  - Level 3 Operational Strategies
  - Level 3 Capital Strategies
  - Level 3 Certification
- Level 4
  - Level 3 Accreditation
  - Level 4 Operational Strategies
  - Level 4 Capital Strategies
  - Level 4 Certification
- Level 5
  - Level 4 Accreditation
  - Level 5 Operational Strategies
  - Level 5 Capital Strategies
  - Level 5 Certification
- Level 6
  - Level 5 Accreditation
  - Level 6 Operational Strategies
  - Level 6 Capital Strategies
  - Level 6 Certification

**Methodology**

- The input data and footprint report of KBFI was prepared by D.E. David, P.E. of Kimley-Horn.
- The Carbon Footprint was calculated with a procedure similar to the ACAP methodology developed for the ACAP.

**Screen Capture of the KCIA ACAP Research Poster**

David served as the project and contract manager for an on-call planning contract with KCIA for the delivery of their key projects. Multiple task orders were executed including concept planning for terminal drive and parking improvements, asset management system development, airport-specific carbon accreditation program preparation through the Airports Capital Accreditation Program (ACAP), development of the Stage 1 ACAP application, development of an airport-wide survey control system, concept planning for future airport development, concept support for fuel system upgrades, and other similar services. The KCIA Carbon Accreditation Program was a unique project that included developing a detailed work plan to support the airport’s sustainability goals and King County’s strategic climate action plan of being carbon neutral by 2030. This project was presented at the 2021 American Society of Civil Engineers (ASCE) National conference.

**Responsibilities/Tasks:** David was the project manager for consultant services on this two-year on-call contact. He led a team to provide KCIA with a wide range of planning, environmental, and preliminary design services.

* Experience prior to Kimley-Horn

**B. Examples of David’s Ability to Manage Schedule, Scope of Work (SOW)/Creep, Budget Issues, and Project Changes**

**San Francisco International Airport (SFO), Sustainable Aviation Fuel (SAF) Feasibility Study, Seattle, WA**

**Client:** SFO  |  **Role:** Project Manager*  |  **Dates:** 2018 – 2019

The project was advertised with a 120-day project schedule—an extremely aggressive schedule limiting the amount of collaboration with stakeholders. David discussed the schedule with SFO’s project manager to understand all the needs and constraints. The primary driver was an upcoming conference and presentation. David developed a revised 10-month schedule that met the early needs of the SFO’s project manager, but increased the project length to get critical input from the airport, stakeholders, and key industry players.

The original SOW included development of cost estimates for infrastructure elements. As the study progressed, additional work regarding funding options was needed. **Our team developed a SOW approved by SFO to complete financial consulting services.**

Upon completion of the study, several key stakeholders wanted to provide additional input involving one-on-one meetings, updates to documents, and production costs that impacted budget. **We adjusted some unspent travel budget to our labor budget with client approval and completed the project within budget.**

Information surrounding producers, suppliers, and volumes available at the project outset had changed by the time the study was concluding. **We were able to update many of the items with a “lightning round” effort to contact key players for updates and used footnotes for dates of information for the final report.**
### WSDOT Rail, Freight, and Ports Division (WSDOT Rail), Tacoma Amtrak Station, Tacoma, WA

**Client:** WSDOT Rail  |  **Role:** Project Manager  |  **Dates:** 2014 – 2019

**Schedule:**

- Tacoma Dome Station

David developed an in-depth schedule that outlined all review and approval timelines and milestones for the Federal Railroad Administration (FRA) grant. It was critical to meet commitments and be transparent on expectations for each agency providing approval. **This project was completed on schedule, with all necessary approvals, and met the full FRA American Recovery and Reinvestment Act (ARRA) grant requirements.**

**SOW/Creep:**

- The project originally included development of a new station and upgrades to an existing Sounder platform. At 30% design, it was determined that to serve both Amtrak and Sound Transit’s proposed schedules, a second platform would be required. **David led the updated project definition to cover the right-of-way (ROW), environmental, design, and bid documents.**

**Budget:**

- The initial Amtrak Station budget estimate was significantly lower than required. As the project’s concept and preliminary engineering efforts progressed, David led a re-budgeting process to develop an accurate budget that was provided to FRA for approval.

**Changes:**

- One significant change included a City of Tacoma requirement to install a second ingress/egress for the new Eastern Platform. This change required swift action to resolve ROW, update environmental documents, and design concepts/permit plans. **As project manager, David mobilized the full team and worked with our partners to implement this requirement into the bid packages.**

### Port of Orcas, Runway 16-34 and Taxiway Reconstruction Environmental Review, Eastsound, WA

**Client:** Port of Orcas  |  **Role:** Project Manager  |  **Dates:** 2009 – 2013

**Schedule:**

- Port of Orcas Runway 16-34

The original project’s SOW included completing preliminary engineering and a documented categorical exclusion (CE). A U.S. Army Corps of Engineers (USACE) Individual Permit became required due to wetland impacts which changed the environmental documentation to an environmental assessment (EA). **David evaluated all schedule impacts from the change in permitting and environmental documentation requirements.** He then developed a revised project schedule to meet the Port of Orcas, FAA, and resource permitting agency’s review and approval schedules.

**SOW/Creep:**

- During preliminary design, it was determined that the project impacted onsite wetlands. **David quickly assessed the changes in SOW that would be required to address the wetland impacts.** David worked with the team’s wetland scientist, environmental lead, and project planning lead to develop an updated SOW for preparing and submitting an Individual Permit through the USACE. This included David leading meetings with the Port of Orcas, FAA, and resource agencies.

**Budget:**

- **Due to the project’s scope and schedule changes, David developed an updated budget and prepared detailed cost estimates for specialty services.** David also prepared new FAA and WSDOT grant applications to cover the costs of the modified project.

**Changes:**

- The significant increase in wetland impacts was a challenge identified early in the project. **David also worked directly with the FAA and WSDOT to keep the funding and approval agencies aware of project changes.** He attended Port Commission meetings to brief the Port of Orcas on changes.

*Experience prior to Kimley-Horn*
**Criteria 3: Key Team Members Qualifications**

**PAM KEIDEL-ADAMS**

**Principal-in-Charge / Forecasts**

**Professional Biography**

**PAM** has 32 years of aviation planning experience, reaching national leadership and achieving industry recognition for her contributions to the aviation planning field. During her career, Pam has led master plans for CS and GA airports, economic impact analyses, air service evaluations, activity forecasting, public and stakeholder outreach, and database management tool development. She has also participated in more than 60 system planning assignments in over 35 states, including Washington. **Pam offers WSDOT an unmatched level of understanding of the technical and regulatory issues facing airports across the U.S.**

**Understanding of WSDOT/Public Agency Regulations/Procedures**

Pam worked on the prior WASP and Washington AEIS projects. Through this and other state DOT and public agency experience, she understands the requirements of public sponsors including the importance of listening, responsiveness, and transparency.

**Relevant Experience**

**WASP Update, Statewide, WA**

**Client:** WSDOT  |  **Role:** Kimley-Horn Project Manager

**Dates:** 2015 – 2017

Kimley-Horn was responsible for developing airport and aviation system performance standards and objectives and reviewing the state’s airport classification system. We analyzed the system’s requirements and recommended solutions, strategies, infrastructure projects, and policies.

**Responsibilities:** emerging issues, airport and system goals and measures, system classification, and committee meetings and outreach.

**Washington AEIS, Statewide, WA**

**Client:** WSDOT  |  **Role:** Project Manager

**Dates:** 2018 – 2020

The Washington AEIS measured the annual economic impact of Washington’s 134 public-use airports including CS and GA airports and even seaplane bases, integrating the results from the Seattle-Tacoma International Airport’s (SEA’s) recently completed EIS. Kimley-Horn began the study with a detailed data collection effort and a tax revenue analysis. The study also assessed how emerging aviation technologies including electric aircraft, UAS, UAM, and alternative aviation fuels may affect the Washington aviation system.

**Responsibilities:** comprehensive data collection, development of performance measures, preparation of visualization of data in GIS format, and final deliverables.

**Arizona SASP Update, Statewide, AZ**

**Client:** ADOT  |  **Role:** Project Manager

**Dates:** 2016 – 2019

Kimley-Horn evaluated the current and future performance of Arizona’s airports through an update of the prior SASP, also led by Pam. We engaged stakeholders, performed on-site data collection at 67 airports, and suggested policy considerations to address the most impactful needs of the statewide system.

**Responsibilities:** financial performance study, stakeholder outreach, and oversight of final deliverables.

**Professional Credentials**

- B.S., Urban Administration, 1989, University of Cincinnati (School of Planning)

**Professional Affiliations**

- Airport Consultants Council (ACC), Former Committee Chair and Airport Planning, Design, and Construction Symposium Track Host
- Airport Cooperative Research Program (ACRP), Panel Member on five projects including NextGen for Airports
- TRB, Aviation Group Chair, Former Intergovernmental Relations Committee Chair
- National Association of State Aviation Officials (NASAO), Business Partner
REGAN SCHNUG, AICP
System Plan Lead / Classification System/Metrics / NPIAS Review

Professional Biography
REGAN has 14 years of experience blending traditional urban planning techniques with aviation planning. She develops airport master plans, ALPs, SASPs, EISs, and airport zoning and land use compatibility guidebooks. Her recent work includes several state and national land use guidebooks as well as SASPs including Arizona, Florida, Idaho, Colorado, Michigan, Wyoming, North Dakota, Indiana, Iowa, South Dakota, Tennessee, and Minnesota. Regan brings a solid urban planning foundation and wide-ranging knowledge of land use policy, regional planning, and smart growth techniques to WSDOT’s WASP.

Understanding of WSDOT/Public Agency Regulations/Procedures
Regan has a thorough understanding of regulations and procedures for public agencies having completed over 15 statewide aviation planning documents.

Relevant Experience
CASP and CEIS, Statewide, CO
Client: CDOT  |  Role: Project Planner
Dates: 2018 – 2020
The 2020 CASP and CEIS was the first time the two efforts had been conducted simultaneously. The project included on-site visits to 65 airports, a new classification system based on the FAA ASSET classifications, detailed forecasts and comparison of FAA baseline data to each airport’s forecast of based aircraft and operations, and analysis of each airport’s contributions, including DEN. We documented stories of aviation users to demonstrate how communities benefited from the airport system.

Responsibilities: project management, co-leading public engagement coordination and presentation, data analysis, report writing, and quality control.

Washington AEIS, Statewide, WA
Client: WSDOT  |  Role: Project Planner
Dates: 2018 – 2020
The Washington AEIS measured the annual economic impact of Washington’s 134 public-use airports including CS and GA airports and even seaplane bases, integrating the results from SEA’s recently completed EIS. Kimley-Horn began the study with a detailed data collection effort and a tax revenue analysis. The study also assessed how emerging aviation technologies including electric aircraft, UAS, UAM, and alternative aviation fuels may affect the Washington aviation system.

Responsibilities: project management, team coordination support, research lead, data analysis, and quality control.

MnSASP Phase II, Statewide, MN
Client: MnDOT  |  Role: Project Planner
Dates: 2020 – Ongoing (anticipated May 2022)
For Phase II of the MnSASP, Kimley-Horn is taking Phase I components (objectives and strategies, system classifications, airport metrics, and system metrics) to conduct an evaluation and develop recommendations.

Responsibilities: advisor to the project manager, conducting quality control reviews of all analyses and documentation, and providing subject matter expertise.

Professional Credentials
• B.S., Urban and Regional Planning, 2010, Michigan State University (School of Planning, Design, and Construction)
• American Institute of Certified Planners (AICP) (#026131)

Professional Affiliations
• American Planning Association (APA), Member
• AICP, Member
• TRB, Intergovernmental Relations in Aviation Committee Member
JOSEPH HUY, CM (RICONDO)
Site Selection Lead

Professional Biography

JOSEPH has over 27 years of experience on a variety of airport planning and aviation projects. He has applied his extensive experience to airport planning projects and community engagement including national expertise with site selection studies, airport master plans, airport land use compatibility plans, ground access planning, landside concept development, and reuse planning at major airports throughout the U.S. Joseph’s keen understanding of the site selection planning process will assist WSDOT decision-makers in identifying impediments to project implementation.

Understanding of WSDOT/Public Agency Regulations/Procedures

Joseph has a thorough understanding and working knowledge of the regulations and procedures of various public agencies through his site selection, airport planning, and environmental assignment experience for local and state agencies. He is adept at listening to client needs and will work collaboratively with WSDOT to achieve all project goals.

Relevant Experience

Airport Site Selection Program, San Diego, CA
Client: SDCRAA  |  Role: Site Selection Lead
For this program, the Ricondo team managed over 25 multidiscipline subconsultants conducting technical analyses and participated in community engagement. The site selection program represented a new approach to airport planning with a dual focus on investigating a suitable replacement for the San Diego International Airport (SAN).

Responsibilities: conducted technical analyses, and managed community engagement.

Various Airport Planning Professional Services, Los Angeles, CA
Client: Los Angeles World Airports (LAWA)
Role: Airport Planning Lead  |  Dates: 2004 – Ongoing
Ricondo has led multiple contracts with a highly diversified team of technical experts to provide a wide range of airport planning services for LAWLA, similar to those required for the WASP. Services for LAWLA include site and airspace analysis, cargo market demand analysis, facility requirements, and ground access and assessment.

Responsibilities: overall client satisfaction, team performance, ensuring availability of resources, issue resolution, and final quality review of all deliverables.

SNSA Phase I Planning Services, Ivanpah Valley, NV
Client: CCDOA  |  Role: Site Selection Lead
Dates: 2020 – Ongoing
SNSA is being planned as a new CS airport to supplement LAS and provide additional aviation capacity to the growing Las Vegas metropolitan area. Phase 1 is validating several key plans previously developed for SNSA and includes new analyses needed by the FAA to conduct the EIS.

Responsibilities: site selection lead.

Professional Credentials

- Master of Public Administration (Aviation Concentration), 1995, Southern Illinois University (College of Business and Analytics)
- B.S., Aviation Flight Operations, 1993, San Jose State University (Department of Aviation and Technology)
- Dual Minors, Business Administration in Human Resource Management and American Studies, 1993, San Jose State University (School of Management)
- FAA Certificate: Private Pilot, Airplane, Single Engine, Land
- FAA Certificate: Repairman Experimental Aircraft

Professional Affiliations

- Aircraft Owners and Pilots Association (AOPA), Member
- Airports Council International (ACI)-North America (NA), Member
- AAAE, Certified Member
HEIDI ROUS, CPP
Environmental Review Lead

Professional Biography

HEIDI has over 30 years of experience providing comprehensive planning, permitting, and compliance services required under various state and federal environmental regulations including NEPA, SEPA, and California Environmental Quality Act (CEQA) for airport, sea port, and railway projects. She also specializes in air quality, hazardous materials, greenhouse gases (GHG)/climate, and risk assessment and communication. Heidi’s experience with a variety of EAs for complex projects across U.S. assures WSDOT that the WASP will meet environmental requirements.

Understanding of WSDOT/Public Agency Regulations/Procedures

Heidi possesses an in-depth understanding of existing regulations, evolving policies, and growing public scrutiny surrounding the issues of air quality and health. She also has experience with local regulations from her contributions to recent projects at the Snohomish County Airport and KCIA.

Relevant Experience

Supplemental EA at Snohomish County Airport, Everett, WA

Client: Snohomish County Airport  
Role: General Conformity Lead* | Dates: 2018 – 2019  
Heidi led the effort to determine general conformity applicability including local air agency staff coordination. Tasks included strategic technical direction and quality review of the air quality analysis for commercial air service at Snohomish County Airport to support a supplemental EA under NEPA.  
Responsibilities: air quality analysis and general conformity lead.

Recommended Airport Development Plan (RADP) EIR, San Francisco, CA

Client: SFO | Role: Air Quality/GHG Technical Director*  
Dates: 2016 – 2020  
Heidi provided strategic technical direction related to the Air Quality Technical Report (AQTR) for SFO’s long-term master plan—RADP. Heidi provided strategic input into the development of the AQTR protocol and served as a liaison on technical issues related to the analysis of air quality and GHG impacts between project team members.  
Responsibilities: AQTR technical direction, AQTR protocol development, and air quality and GHG analysis.

Eastgate Air Cargo Facility Project, San Bernardino, CA

Client: San Bernardino International Airport (SBD)  
Role: Air Quality/GHG Technical Director*  
Dates: 2017 – 2021  
Heidi led the air quality/GHG analysis of the Eastgate Air Cargo Facility project which involved proposed logistics operations on currently idle land, requiring an air quality impact assessment (AQIA) including complex airside and landside emissions modeling and dispersion modeling.  
Responsibilities: technical oversight of AQIA, NEPA documentation support, and protocol adherence.

* Experience prior to Kimley-Horn

Professional Credentials

- B.S., Physics, 1990, California State Polytechnic University (Department of Physics and Astronomy)
- Certified Permitting Professional (CPP) (#B6027)

Professional Affiliations

- Air & Waste Management Association (A&WMA), Member
MARY VIGILANTE (SYNERGY)

Professional Biography

MARY has over 40 years of experience preparing environmental documents under NEPA and strategic plans for sustainable expansions at large and small airports throughout the U.S. Her experience in airport environmental planning is uniquely diverse, including EAs, CEs, environmental impact statements, sustainability airport master and management plans, GHG inventories, climate action plans, noise abatement planning, and public outreach and agency coordination plans. Mary’s range of experience provides WSDOT with valuable insight on important sustainability principles to incorporate into the WASP.

Understanding of WSDOT/Public Agency Regulations/Procedures

Mary has worked with numerous airports both small and large on their sustainability plans. She understands how public agencies operate and will apply her diverse knowledge to the WASP.

Relevant Experience

Sustainable Airport Master Plan, Seattle, WA
Client: Port of Seattle | Role: Sustainability Lead
Dates: 2014 – 2018
The Port of Seattle was one of the first large commercial airports to attempt to prepare a sustainable airport master plan. Unexpected growth in activity delayed the planning effort, and the planning team identified that SEA was not able to serve the demand and organizationally decided to only pursue the necessary facilities.

Responsibilities: prepared final sustainability documentation (identified environmental effects of near-term projects and the environmental review process).

Sustainable Airport System Plan, Statewide, CO
Client: CDOT | Role: Sustainability Lead
CDOT was the first state to receive a grant from the FAA to integrate sustainability into the system planning process. This plan introduced sustainability to all GA airports in the state and provided a user-friendly tool to aid airports in preparing sustainability management plans. Synergy helped prepare the sustainability tool and associated guidance documentation.

Responsibilities: sustainability goal support and identification of areas of improvement for financial, social, and environmental sustainability.

Sustainability Management Plan, Renton, WA
Client: RNT | Role: Sustainability Lead
Dates: 2011 – 2012
RNT is located in a sustainability-forward region that strives to ensure public facilities are efficient, have a reduced environmental footprint, and provide local social benefits. RNT desired a holistic approach to managing the airport to grow its economic viability, operational efficiency, and natural resource conservation while meeting regulatory requirements. Synergy provided strategic direction and assisted in identifying issues.

Responsibilities: strategic direction, baseline inventory, management system structure development, and reported progress to the Renton Advisory Committee.

Professional Credentials

• B.S., Mathematics, 1978, Berry College (Department of Mathematics and Computer Science)

Professional Affiliations

• ACI Airport Carbon Accreditation (ACA) approved verifier
• 2014 ACI-NA Peer Recognition Award for Outstanding Individual Contribution and Leadership
• 2013 University of California, Davis Walt Gilfillan Award
KEN BUKAUSKAS (RICONDO)

Air Cargo

Professional Credentials
- B.S., Economics, 1993, George Mason University (Department of Economics)

Understanding of WSDOT/Public Agency Regulations/Procedures
Ken has provided cargo facility planning services to large-hub airports around the world since 1999. He is highly familiar with the regulations and procedures of working with public agencies.

Relevant Experience
- Dallas-Fort Worth International Airport (DFW Airport), On-Call Planning Services – Cargo Lead (2016 – 2017)
- City of Atlanta Department of Aviation, Perishables Market and Fumigation on Facility Study for Hartsfield-Jackson Atlanta International Airport (ATL) – Project Manager (2016 – 2016)
- Hillsborough County Aviation Authority (HCAA), Cargo Demand Forecast for Tampa International Airport (TPA) – Project Manager (2018 – 2018)

CATHERINE WOODWELL

Emerging Issues / Classification System / Metrics / Special Studies Review / NPIAS Review / System Alternatives

Professional Credentials
- M.A., Sustainable Communities, 2009, Northern Arizona University (Sustainable Communities Program)
- B.A., Religious Studies, 2006, Northern Arizona University (Department of Comparative Cultural Studies)

Understanding of WSDOT/Public Agency Regulations/Procedures
Catherine served in lead roles on both the 2020 WASP and 2020 Washington Electric Aircraft Feasibility Study. Through this experience, Catherine is able to develop high-quality deliverables in accordance with WSDOT’s expectations.

Relevant Experience
- MnDOT, MnSASP – Deputy Project Manager (2020 – Ongoing)
- ITD, IASP and AEIS – Deputy Project Manager (2018 – 2020)

ANDREW SCANLON

Site Selection Alternatives / Facility Needs / Air Cargo

Professional Credentials
- Masters of Information Systems, 2009, University of Phoenix
- MBA, Technology Management, 2004, University of Phoenix
- B.S., Industrial Design, 2001, ITT Technical Institute (School of Information Technology)

Understanding of WSDOT/Public Agency Regulations/Procedures
Andrew has worked with various state DOTs, counties, and cities throughout the U.S. Nearly all projects he has worked on have been funded through FAA Airport Improvement Program (AIP) grants, providing him with the necessary experience for the WASP.

Relevant Experience
- MWAA, Dulles International Airport (IAD) Master Plan – Project Planner (2020 – Ongoing)
- Antonio B. Won Pat International Airport Authority, GA Site Selection – Project Planner* (2005 – 2007)
- Volusia County, Professional Aviation Planning Services for the Daytona Beach International Airport Master Plan Update – Deputy Project Manager (2016 – 2020)

* Experience prior to Kimley-Horn
TOM SCHNETZER

Site Selection Alternatives / Commercial Passenger Service

Professional Credentials
• Bachelor of Urban Planning, 1987, University of Cincinnati (School of Planning)

Understanding of WSDOT/Public Agency Regulations/Procedures
Tom has managed airport planning projects at more than 100 airports, helping owners navigate all steps of the planning process. He has worked with multiple agencies in the Pacific Northwest, including the FAA.

Relevant Experience
• Friedman Memorial Airport (SUN), Wood River Region Airport Site Selection and Feasibility Study – Project Manager* (2004 – 2006)
• Aspen/Pitkin County Airport, Program Management Services and Community Vision Process Support – Project Planner (2018 – Ongoing)
• Louisville Muhammad Ali International Airport (SDF), Professional Airport Planning Services, Airport Master Plan – Project Manager (2018 – Ongoing)

ELIZABETH MCQUEEN

Airspace

Professional Credentials
• M.S., Systems Engineering, 2013, University of Pennsylvania (Department of the School of Engineering and Applied Science)
• Master of City and Regional Planning, 2006, University of Pennsylvania (Department of City and Regional Planning)
• B.A., 2003, University of Michigan

Understanding of WSDOT/Public Agency Regulations/Procedures
Elizabeth has led planning and design analysis for numerous airports across the U.S. and abroad. She is highly familiar with the public agency regulations, processes, and procedures at airports including SEA where she supported master planning and strategy.

Relevant Experience
• City of Detroit, Coleman A. Young Airport (DET) ALP Update and FAA Airspace Analysis – Technical Team Member (2020 – Ongoing)
• Midland Development Corporation, Midland High-Speed Airspace Corridor Analysis – Technical Team Member (2019 – 2020)

LAURA HOLTHUS

Site Selection Alternatives / Facility Needs / System Alternatives

Professional Credentials
• B.S., Aviation Management and Minor, Computer Information Systems and Management, 2002, Metropolitan State University of Denver, (Department of Computer Information Systems) with Honors
• FAA Certificate: Private Pilot, Single Engine, Land, with Instrument Rating

Understanding of WSDOT/Public Agency Regulations/Procedures
Laura has a thorough understanding and working knowledge of the regulations and procedures of various public agencies through her airport planning work domestically and internationally and through her work with the Port of Seattle.

Relevant Experience
• SEA, Advanced Planning Indefinite Delivery/Indefinite Quantity (IDIQ) – Project Manager (2017 – Ongoing)
• Vancouver International Airport (YVR), On-Call Planning Assignments – Senior Aviation Planner/Project Manager (2013 – 2019)
• Dubai International Airport, Plus Strategic Asset Plan – Senior Aviation Planner/Technical Advisor (2016 – 2016)

* Experience prior to Kimley-Horn
### JEFF STANLEY (RICONDO)

**Commercial Passenger Service**

**Professional Credentials**
- MBA, 2006, Northwestern University (Kellogg School of Management)
- B.A., Economics, 1991, University of Chicago (Kenneth C. Griffin Department of Economics)
- FAA Certificate: Commercial Pilot, Airplane, Single Engine, Land

**Understanding of WSDOT/Public Agency Regulations/Procedures**
Jeff has a thorough understanding and working knowledge of the regulations and procedures of various public agencies through his airport planning work, his role as a flight instructor and flight school director, and through his role with the Regulatory and International Affairs division at United Airlines.

**Relevant Experience**
- **City of Philadelphia,** Feasibility Planning – *Forecasting Lead* (2014 – Ongoing)
- **Metropolitan Airports Commission (MAC),** Aviation Activity Forecasts for the 2040 Long-Term Plan – *Forecasting Lead* (2019 – 2020)
- **Allegheny County Airport Authority (ACAA),** Master Plan Update and On-Call Planning Services – *Forecasting Lead* (2013 – Ongoing)

### CHRISTY SHELTON (CASCADIA)

**Sustainability**

**Professional Credentials**
- M.S., Resource Policy and Administration, 1997, University of Michigan (School for Environment and Sustainability)
- B.A., American Studies (Environmental Policy focus), 1992, Stanford University, (School of Humanities and Sciences) with Honors

**Understanding of WSDOT/Public Agency Regulations/Procedures**
Christy has served as project manager for Sound Transit’s On-Call Sustainability Consulting project since 2014. Through this, she has navigated public agency regulations when leading the team to work with Sound Transit to implement strategic planning and organizational change solutions.

**Relevant Experience**
- **Sound Transit,** On-Call Sustainability Consulting – *Project Manager* (2014 – Ongoing)
- **City of Bellevue,** Environmental Stewardship Plan and GHG Analysis Services – *Principal-in-Charge* (2017 – 2018)
- **City of Redmond,** Environmental Sustainability Action Plan – *Principal-In-Charge* (2019 – Ongoing)

### BASIL YAP (HOVECON)

**Emerging Issues**

**Professional Credentials**
- B.S., Civil Engineering, 2009, North Carolina State University (Department of Civil, Construction, and Environmental Engineering)

**Understanding of WSDOT/Public Agency Regulations/Procedures**
Basil’s experience working with FAA and other government and industry teams to support a variety of clients equips him with a deep level of knowledge and understanding of public agency regulations and procedures.

**Relevant Experience**
- **State of North Carolina,** FAA UAS Integration Pilot Program – *Program Manager* (2018 – Ongoing)
- **North Carolina DOT (NCDOT),** UAS Integration – *UAS Lead* (2016 – Ongoing)
- **State of North Carolina,** Statewide UTM System – *UTM Lead* (2016 – Ongoing)
SAMANTHA PETERSON (CWE)

Professional Credentials
• B.S., Aviation Management, 2009, Central Washington University (College of Education and Professional Studies)
• FAA Licensed Pilot
• Advanced Operations Certification, 2013

Understanding of WSDOT/Public Agency Regulations/Procedures
Samantha has significant experience coordinating with WSDOT, including the most recent round of ALP updates for Bandera State, Easton State, Lake Wenatchee State, Sullivan Lake State, Woodland State, and other airports.

Relevant Experience
• Oregon Department of Aviation, Aviation System Plan v6.0 – Airport Planner (2018 – 2019)
• Snohomish County Airport, Master Plan Update – Airport Planner (2020 – Ongoing)
• Yakima Air Terminal-McAllister Field (YKM), ALP Update and AGIS Survey – Airport Planner (2019 – 2021)

SUMMER MARR (MAP)

Professional Credentials
• B.S., Business Administration, 1999, Shenandoah University (School of Business)

Understanding of WSDOT/Public Agency Regulations/Procedures
Summers experience working on statewide and master plan projects and airport strategic business plans has given her a deep knowledge of the regulations and procedures of individual airports and statewide aviation agencies.

Relevant Experience
• New Jersey DOT (NJDOT) Bureau of Aeronautics, New Jersey SASP – Airport Planner (2019 – Ongoing)
• NCDOT Division of Aeronautics, North Carolina Airport System Plan – Airport Planner (2012 – 2016)
• Iowa DOT (IDOT) Aviation Bureau, Iowa SASP – Airport Planner (2020 – 2021)

DAVID HUNLEY (CONNICO)

Professional Credentials
• B.S., Civil Engineering, 1983, University of Tennessee (Department of Civil and Environmental Engineering)

Understanding of WSDOT/Public Agency Regulations/Procedures
David’s experience collecting available information on current and past “like” trade projects in the market area coupled with his experience evaluating cost influencing factors such as time of bid, construction schedule, availability of labor and materials, and productivity goes hand-in-hand with understanding the specific WSDOT regulations.

Relevant Experience
• TDOT, Tennessee Airport System Plan – Cost Estimating (2020 – 2021)
• Commonwealth of Kentucky Department of Aviation, Kentucky SASP – Cost Estimating (2017 – 2018)
Criteria 4: Firm’s Project Management System

Kimley-Horn’s Project Management System

Over 90% of Kimley-Horn’s business is from repeat clients, a testament to our quality client service provided by our professionals. Kimley-Horn’s process for providing exceptional client service starts from the moment our phone rings and you need a solution for an issue or a plan for the future. Our team will use established procedures to maintain schedule and quality control of project documents and provide cost-effective solutions. Below is an overview of the project management systems we have in place.

Quality Assurance/Quality Control (QA/QC) Processes

We strive for our procedures to facilitate the delivery of high-quality services that satisfy your needs. Our firm implements a quality management program for each project that either follows a standard Kimley-Horn process, Project Management Body of Knowledge (PMBOK) principles, or utilizes our client’s program. The primary driver is to make the quality management program a key portion of the project by including it in our work plan and implementing our tried-and-true QA/QC processes throughout the duration of the project.

Our program follows the key elements described in Chart 7 and is based on the philosophy that:

- **Quality is achieved** through adequate planning, coordination, supervision, and technical direction; clear definition of the job requirements and procedures; understanding the scope of services; and the use of appropriately-skilled personnel carefully performing work functions.

- **Quality is secured** with careful surveillance of work activities by individuals not directly responsible for performing the initial efforts—a key element of independent verification.

- **Quality is controlled** by assigning a manager to evaluate the work and procedures followed while providing services. We have identified Quality Manager Zach DeVau, AICP for this assignment. Zach has significant experience with aviation planning contracts and the successful implementation of key quality processes.

- **Quality is verified** through independent reviews of the processes, procedures, documentation, supervision, technical direction, and staffing associated with project development. This occurs throughout the lifetime of the project, not just at each key submittal. As noted in Chart 7, we include peer reviews, technical reviews, and “big picture” reviews throughout the project, allowing for real-time checks to improve the quality of each product.

Communication is a key element of our quality management program, including communication within the Kimley-Horn team, full delivery team, FAA, and with WSDOT. Including the topic of quality in periodic meetings emphasizes the importance of our quality program, allows for open and honest discussions, and makes room for course corrections during work progression as opposed to later in the project when corrections can become more expensive.

![Chart 7 – QA/QC Process Flow Chart](chart7.png)

**Quality Assurance. Quality Control.**

- **Training and Define Expectations**
- **Check Lists**
- **Peer Review**
- **Technical Review**
- **“Big Picture” Review**
- **Respond to Comments**
- **Prepare Final Documents**

Our proven Quality Management Program Results in Clear and Accurate Documents

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WSDOT Aviation System Plan
Tracking System to Monitor Project Budget and Scope

Kimley-Horn uses the Cost Point Engineering Accounting system to track labor hours and expenses for each project. Twice monthly, Kimley-Horn uses a detailed, integrated system called Management Information System (MIS) to generate a Project Effort Report showing task effort and project expenses. This internal control allows us to make necessary adjustments on a timely basis to stay within budget and assist in completing all task items.

Our budget control measures include the use of Task Assignment Sheets (TAS) to assign a task to an individual staff member. The TAS identifies what task is to be completed, how many hours are allocated to that task, when the task is to be completed, and the resources needed to complete the task. The Kimley-Horn staff member receiving the TAS is required to sign off on the budget hours and task completion date before initiating the task.

The contracted budget information is organized in our system based on the project work breakdown structure (WBS). We will develop a complete WBS to match the SOW as approved by both WSDOT and the FAA, just as we have completed on previous projects. The WBS structure allows for high-level tracking of the first level of the WBS as well as continuous status tracking through completion of the work items. These ongoing monitoring activities not only help to manage project scope and budget, but also expedite invoice preparation and ensure accuracy.

At key points throughout the project, we will initiate a project review including scope, schedule, budget status, and the expected cost to complete each task. If tasks begin to lag, we can quickly identify the causes and take corrective action to keep the task within budget and on schedule. It is during these reviews that potential budget issues can be addressed early and action can be taken quickly. Chart 8 provides a sample project analysis screen capture, highlighting the level of detail provided twice per month using our Cost Point Engineering Accounting.

Scheduling Program, Software, and Project Examples

Our best cost and schedule control resource—our staff—has several tools to help them control schedule. Kimley-Horn project managers use the project management program Microsoft Project to assist in tracking project task labor hours and expenses. Labor hours are assigned to each activity and task along with hourly labor rates. As labor hours are expended (reported from bi-monthly time sheets), the costs are updated in Microsoft Project. Cost reports are generated with the software and can be checked against our main cost accounting system.

Kimley-Horn typically uses Microsoft Project for every project schedule unless a client requests a different software. Our staff is well-versed in Microsoft Project, using it to develop appropriate milestones and keep projects on task.

Chart 9 on the following page lists three projects where Project Manager David Williams utilized the Microsoft Project software to manage the project schedule.
Process for Interacting with the Internal Project Team

Successful project completion begins with open, effective communication. We know it is imperative to provide clear communications, coordination, and collaboration among team members to ensure the project is successfully completed on time and within budget. The Kimley-Horn team understands how to communicate effectively to establish priorities and identify solutions. As part of our culture, our internal teams meet weekly to review project workload and resolve any issues anticipated. For this project, Project Manager David Williams will be the primary point of contact for our team and will provide regular oversight of the activities. He will meet regularly with both internal and external project team members to coordinate project tasks, resolve issues, develop proactive strategies, and keep the project moving forward. Team meetings include:

- Schedule updates, progress, and upcoming deliverables
- QA/QC procedures
- Action item development and monitoring
- Technical issues/events

The project team may utilize a web-based information sharing site such as SharePoint that allows team members, agency staff, and subconsultants to access a common set of electronic documents. We also utilize Microsoft Teams for team calls to allow for everyone to be present and use the share screens feature to discuss project details. This promotes better version control of documentation and collaboration on products.

Ability to Interact with WSDOT and Stakeholders

Communicating with WSDOT

Our ability to effectively communicate with WSDOT comes from our experience working with an array of clients. Project Manager David Williams has been serving aviation clients for 25 years. The Kimley-Horn team, under David's direction, will operate as an extension of WSDOT staff. Upon Notice-to-Proceed (NTP), David will meet with WSDOT staff and other key officials at a kick-off meeting for the WASP, during which we will finalize a SOW/work plan for WSDOT and FAA review, discuss staff coordination guidelines, and determine procedures for sharing information. As noted in the draft SOW, we will also review risks with WSDOT.

Following the kick-off meeting, coordination between WSDOT staff and our team will occur at set milestones in the project to present preliminary findings, coordinate ongoing tasks, and obtain feedback on initial draft materials prepared for the WASP. Routine coordination in between on-site meetings with WSDOT staff will be facilitated through video calls, conference calls, e-mails, and interaction over a private Kimley-Horn ShareFile or SharePoint site created for the WASP.

Communicating with Stakeholders and the General Public

The Kimley-Horn team understands how to communicate and work with the general public, providing them opportunities to establish their priorities and understand and support the proposed solutions to their concerns. We know how critical meaningful public involvement can be to a project, and we have the proven ability to effectively engage stakeholders and the general public. Similarly, virtually all of our work puts us face-to-face with agency committees, commissions, and councils. These interactions require careful listening, flexibility in approach and technique, confidence, and relevant experience regarding tailored solutions to project challenges.
Criteria 5: Project Delivery Approach

A. Work Plan

Work Plan Development

Our approach to developing a work plan starts with listening to WSDOT staff regarding key issues the aviation system is currently facing. We will focus on using the FAA’s standard system planning methodology as a foundation to address your key issues.

Our team has been tracking this project for the last several years, which includes meetings and conversations with WSDOT and key stakeholders as well as providing guidance and assistance for technical work to support the CACC over the last 18 months. We understand all that WSDOT faces for this project and will work alongside your staff to deliver the project that will meet your expectations.

We see the work plan development process as a partnership with WSDOT and recognize the need to be adaptive and flexible, contributing our knowledge and expertise while integrating and tailoring the work plan specific to Washington. We are confident that WSDOT’s key issues can be addressed within the FAA’s standard system planning methodology with specialty analyses woven throughout.

Decision-Making Process

It is important that the work plan meets FAA’s guidelines, ensures WSDOT’s goals for the aviation system plan are achieved, and that the resulting WASP delivers useful information. The WASP will serve as a foundation for aviation economic growth and provide a strong roadmap for moving forward. The primary key members involved in the decision-making process of the work plan include WSDOT management and staff, key Kimley-Horn team staff, and the FAA. Primary key staff for our team includes Project Manager David Williams, Principal-in-Charge Pam Keidel-Adams, System Plan Lead Regan Schnug, Environmental Review Lead Heidi Rous, Site Selection Lead Joseph Huy (Ricondo), and Sustainability Lead Mary Vigilante (Synergy).

These primary key staff represent our team’s leadership and play a significant role for specific elements of the WASP.

The first discussions of work plan development will be held with WSDOT and the Kimley-Horn team. The next step we recommend is reaching out to key members of the CACC and TAC to provide feedback on the SOW. This allows for their buy-in and the opportunity to ensure their concerns are addressed before the draft scope is sent to the FAA. The draft scope will be coordinated with the FAA for review and approval as the primary funding agency of the study. If there are elements that the CACC or TAC request that the FAA will not approve for funding, WSDOT can then determine if those elements should be funded by WSDOT-only funds or removed from the study. We recommend several working meetings to create a work plan that addresses the needs of WSDOT first, then those of other key stakeholders. The work-planning effort could also be confirmed as the first task, which is reimbursable under the FAA grant. The benefit of this approach is managing expectations of stakeholders potentially involved in implementation up front.

The Kimley-Horn team understands the need to move quickly on the initial work plan to begin the technical work required to inform CACC and the legislatively mandated decision-making schedule. As it is understood, this work will be released over several task assignments to match grant funding availability. This makes it possible to have a tighter team develop the initial work plan for the first assignment, then involve a larger group for future assignments.
**Work Plan Elements**

Through the Request for Qualifications (RFQ), prior project briefings, and our discussions with WSDOT, we created an outline of elements of the WASP summarized in **Chart 10**. A successful work plan, built on this outline, must clearly identify our responsibilities and those anticipated from WSDOT; include items such as reviews, key information to be provided, and decision points; clearly articulate products from the study; and generate consensus on the format and production that brings the most value and usefulness to WSDOT.

*Chart 10 – Work Plan Elements*

<table>
<thead>
<tr>
<th>Primary Task</th>
<th>Purpose and Relationship to Other Tasks</th>
<th>Key Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>National, State, Regional, and Local Emerging Issues</td>
<td>Analyze how emerging aeronautics will impact the system including serving the growing demand at existing and potential new sites, environmental impact, and sustainability</td>
<td>Electric aircraft, SAF, UAS and other emerging aeronautics will impact infrastructure needs and have a positive effect on the human and physical environment</td>
</tr>
<tr>
<td>Inventory of System Condition and Performance</td>
<td>Obtain technical data (for AIS) to analyze commercial passenger, cargo, and GA demand including socioeconomic, aviation activities, and capacities of airside and landside facilities</td>
<td>Verified data serves as the basis for forecasting and capacity analysis, as well as measurement of airport and system performance to develop implementable recommendations</td>
</tr>
<tr>
<td>Goals, Objectives, Performance Measures, and Metrics</td>
<td>Goals, measures, and metrics (based on inventory data) evaluate system performance and determine system requirements, priorities, and recommendations</td>
<td>Update to reflect focus on sustainability, environmental considerations, and facilitating emerging aeronautics and SAF</td>
</tr>
<tr>
<td>Activity Forecasts</td>
<td>Forecasts dictate future facility needs including capacities of existing or new airports to accommodate commercial passenger, cargo, and GA flights which contribute to solutions and recommendations</td>
<td>Consider development costs and benefits to environment, including noise and public health concerns, from accommodating demand and identifying an airport of the future template</td>
</tr>
<tr>
<td>System Requirements</td>
<td>Beyond airfield capacity, costs of terminal, parking, aircraft storage, and other system requirement needs (based on state classifications) will determine system-wide funding levels</td>
<td>Infrastructure needed to accommodate eVTOL, SAF, and alternate propulsion and costs to address environmental considerations</td>
</tr>
<tr>
<td>Sustainability Plan</td>
<td>Sustainability policy and framework must consider commercial passenger, cargo, and GA activities with initiatives focused on reducing emissions and being environmentally responsible</td>
<td>Increased electric needs and uses at airports, increased renewable energy efficiency, and consideration of economic benefits and contributions balanced with social and environmental responsibility</td>
</tr>
<tr>
<td>Alternatives Analysis</td>
<td>Prior tasks/CACC-related analysis inform initial alternatives developed to meet CACC deadlines for identifying six sites and two, then a preferred location</td>
<td>Alternatives to address financing, system expansion or contraction, not accommodating demand, and emerging aeronautics that lead to recommendations</td>
</tr>
<tr>
<td>Identification of System of Airports</td>
<td>Activities, functions, and contributions of airports and the required update of state classifications including parameters for system participation and changing classifications over time</td>
<td>NPIAS vs. non-NPIAS, potential distributed commercial passenger service, and off-airport locations for air mobility will determine the future Washington aviation system</td>
</tr>
<tr>
<td>Intermodal Integration and Airport Access</td>
<td>Landside access (especially for commercial passenger and cargo demand) evaluated using travel demand models, proposed projects, and other plans from prior tasks</td>
<td>Coordination with other agencies responsible for local and regional planning and statewide partners to ensure consensus on the results, including specific intermodal needs</td>
</tr>
<tr>
<td>Community Engagement</td>
<td>Regular and frequent communication, messaging, and materials development to support CACC outreach</td>
<td>Focus on technical analysis with consideration of community impacts and input, providing results for decision-making</td>
</tr>
<tr>
<td>Development Priorities and Justification</td>
<td>Turn needs into costs and identify priorities, schedules, financial sources, and development initiatives as it relates to WA State Priorities of Government and “Results Washington”</td>
<td>Prepare phased action plan that incorporates justification and emphasizes priorities of Washington, identifying timing of emerging aeronautics opportunities</td>
</tr>
<tr>
<td>Policy, Project, and Funding Investigation Recommendations</td>
<td>Prior analysis of capacities, system airports, requirements, and development needs for policy, project, and funding recommendations for potential implementation</td>
<td>Incorporate sustainability and environmental stewardship considerations with funding options and determine governance structures for a potential new airport</td>
</tr>
<tr>
<td>Review NPIAS Qualifications</td>
<td>Identify system of airports eligible for NPIAS with system requirements addressing needs based on airport role</td>
<td>FAA criteria for NPIAS inclusion for a potential new commercial/cargo site and airport role change impacts</td>
</tr>
</tbody>
</table>
Addressing Contingencies

Our Team’s Strategy

From our prior WSDOT projects, we find that you first define a work plan or scope of services then “work the plan.” From our lessons learned, we know that to achieve success you must also “plan the work”—address project issues/changes as they arise and create room for contingencies. The Kimley-Horn team offers WSDOT a partnership structured specifically to help “plan the work” by assembling an adaptive, flexible team with sufficient capacity to adjust as needed. Our team consists of active partners who will work with WSDOT every step of the way, coordinating closely and maintaining constant communication to allow for timely responses. These proactive measures limit the impact of unforeseen project issues and ensure we meet WSDOT’s goals for the WASP.

Potential Mechanisms

There are multiple mechanisms to address contingencies depending on scale and impact to schedule and budget. Potential mechanisms include:

- **Task Orders** – provides the opportunity to re-work the plan for each task order as information is obtained, allowing for better-informed decision-making.
- **Phased Work** – allows our team to evaluate remaining tasks at the end and set a definitive course for any additional work products, possibly including a final report and outreach effort. Three potential phases could include:
  - **Phase 1** – initial required work elements surrounding technical analysis needed for the CACC, work plan development, and the initial understanding of emerging aviation issues and environmental conditions.
  - **Phase 2** – additional aviation issues, goals and system performance measures, data collection and inventory, airport roles, and activity demand forecasts.
  - **Phase 3** – statewide facility objectives and standards analysis, system evaluation and alternatives, system implementation elements, and sustainability framework and policy.

B. Approach to Resolving Issues

**Project Manager David Williams** keeps issue resolution as a key tool in his portfolio that requires attention to detail, proactive project engagement, and an ability to quickly evaluate options and solutions. Our team works to identify issues early on and develop solutions that are responsive, efficient, and minimize impacts to schedule and budget.

Project resolution starts with our team—including several members who have already built relationships with WSDOT from prior projects. The Kimley-Horn team has clearly defined roles and an established, effective communication plan with regular reporting to identify issues as early as possible. These same principles are extended to WSDOT, furthering our efforts to resolve issues early on.

We recommend holding coordination meetings between WSDOT and the Kimley-Horn team monthly—potentially more often during key periods of the project—to review project status, upcoming deliverables, discuss current work efforts, and focus on any current issues. Reoccurring coordination meetings open an avenue to ensure all issues are discussed and resolution plans are developed as they arise.

C. Assumptions for Work Breakdown Structure

To efficiently complete the WASP, it is important for the work plan to identify the responsibilities and assumptions of both the Kimley-Horn team and WSDOT. **Chart 11** on the following page summarizes our key WBS assumptions related to WSDOT’s anticipated responsibilities for the WASP.
### Chart 11 – WBS Assumptions for WSDOT Responsibilities

<table>
<thead>
<tr>
<th>Primary Task</th>
<th>WSDOT Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>National, State, Regional, and Local Emerging Issues</td>
<td>Provide previous studies, working group notes, and other pertinent information. Facilitate introductions to relevant industry staff as required.</td>
</tr>
<tr>
<td>Inventory of System Condition and Performance</td>
<td>Assemble and provide all available airport data currently held by WSDOT. Provide data from GIS files relevant to the study’s analysis, provide airport contact information, and distribute announcements to airports as required.</td>
</tr>
<tr>
<td>Goals, Objectives, Performance Measures, and Metrics</td>
<td>Provide pertinent information regarding the current goals, objectives, and performance measures and metrics. Provide any input related to study topics from other WSDOT divisions received.</td>
</tr>
<tr>
<td>Activity Forecasts</td>
<td>Identify and provide any specific or preferred socioeconomic or similar resources for consideration for forecasting.</td>
</tr>
<tr>
<td>System Requirements</td>
<td>Provide information on known capacity constraints, surface transportation plans, and other similar data. Provide any known information relative to potential future airport sites that are available.</td>
</tr>
<tr>
<td>Sustainability Plan</td>
<td>Provide any existing WSDOT guidance on sustainability or plans developed to implement a sustainable strategy.</td>
</tr>
<tr>
<td>Alternatives Analysis</td>
<td>Provide the analysis completed in the PSRC Regional Aviation Baseline Study and any internal studies completed by WSDOT in support of CACC. Provide recommendations and feedback for the development of alternative and greenfield airport scenarios.</td>
</tr>
<tr>
<td>Identification of System of Airports</td>
<td>Provide information and feedback on the existing classification system identified since the WASP classification system was implemented.</td>
</tr>
<tr>
<td>Intermodal Integration and Airport Access</td>
<td>Provide information regarding existing studies and known information on intermodal airport access constraints and opportunities. Coordinate with WSDOT divisions for intermodal access requirements as needed.</td>
</tr>
<tr>
<td>Community Engagement</td>
<td>WSDOT and their outreach consultant team will lead the CACC outreach efforts, review all materials prepared by the Kimley-Horn team, identify the TAC, and coordinate logistics for all stakeholder meetings.</td>
</tr>
<tr>
<td>Development Priorities and Justification</td>
<td>Provide available cost and funding strategies prepared by previous studies, review and comment on the Kimley-Horn team’s recommendation of priorities, and coordinate with other WSDOT divisions as required.</td>
</tr>
<tr>
<td>Policy, Project, and Funding Investigation Recommendations</td>
<td>Provide input and direction on the Kimley-Horn team’s initial work products and review the team’s identification of parameters regarding project costs and integration of airport Capital Improvement Plans (CIPs) into the study.</td>
</tr>
<tr>
<td>Review NPIAS Qualifications</td>
<td>Provide known information regarding airports in the state system that want to enter or be removed from the NPIAS. Review draft documents and coordinate with the airports.</td>
</tr>
<tr>
<td>Project Management</td>
<td>Attend coordination meetings and provide timely feedback on schedule, deliverables, and other pertinent project elements.</td>
</tr>
</tbody>
</table>

### D. Key Issues and Critical Milestones

#### Key Issues

Based on our understanding of WSDOT’s goals of the study, we have identified the following key issues we believe are critical to the success of the WASP. **These are the key drivers for the system planning work and will be addressed and considered during all phases of the study.** An agreement on key issues at the outset of the planning process allows all parties to work toward the end product with the same goal in mind.

1. **Provide Analysis and Actionable Recommendations to the CACC**

   Past studies, including the recently completed PSRC Regional Aviation Baseline Study, have concluded that the existing airport system in the Puget Sound will not be able to meet projected commercial passenger demand for the region (estimated using the FAA’s Terminal Area Forecast for SEA as a proxy for Puget Sound demand), with a gap of approximately 14-20 million annual passengers by 2045 as can be seen in Chart 12 on the following page. **To fully meet this projected demand, a new airport site would likely be required.**

   CACC will choose the solution or series of solutions that best meets Washington State’s objectives and long-term needs while balancing the desires of the stakeholders and involved communities. It is also possible that CACC’s chosen solution will not include accommodating 100 percent of the region’s projected demand. **As your consultant team, it is our role to provide CACC with the technical analyses and tools needed to facilitate this decision.**
Our team will approach the site selection component of the WASP in such a way that provides unbiased and objective analysis of the technical requirements for a greenfield 14-20 million annual passengers airport. As part of this analysis, cargo requirements (including realistic demand for any potential site to offload SEA), and GA requirements should be factored into any new airport.

As scenarios are developed, our team will assess existing regional airports’ capabilities to realistically expand and accommodate passenger traffic in addition to cargo and GA, building on past studies. A detailed understanding of the composition of demand, particularly relating to passenger service, is key to any solution.

Our team consists of individuals with significant expertise in forecasting and aviation analytics who understand airline business models, the airline decision-making process, and can apply analytical techniques to drill into the type of passenger details needed to understand the market and its potential. We can also assess the likelihood for emerging technologies to play a role in accommodating future demand, which elements it could accommodate, and how airline business decision-making could influence those opportunities.

Given the importance of the detailed forecast and air service analysis, it must be one of the first steps of the study as it lays the foundation for all following facility requirements and demand/capacity assessments. A thorough understanding of demand and capacity, enabling a gap analysis by sub-market, airport/combination of airports (including new greenfield site options), and aggregated to the broader proposed solutions are key elements to a successful study.

2. Environmental Stewardship

As highlighted by WSDOT throughout the draft SOW, CACC meetings, and other forums, environmental stewardship is vital to a successful WASP. A range of environmental factors and impacts must be considered and evaluated to properly analyze potential impacts of future airport development including noise, air and water quality (including GHG), environmental justice, habitat and wetlands, and climate. Directly related to this is the impact on public health as documented in the December 2020 Report to the Legislature (re: Washington State House Bill 1109), Community Health and Airport Operations Related Noise and Air Pollution. Environmental impacts will be considered separately as well as part of the sustainability efforts undertaken during this project.

Alternatives to mitigating environmental impacts, such as no-build, require evaluation—especially related to addressing commercial and cargo capacity through the expansion of existing airports and/or the
development of new facilities. The alternatives consider how meeting the full level of demand, or some reduced level, may impact different environmental factors and conditions. Specific to noise, recent research on the impacts associated with emerging aeronautical activities such as eVTOL and electric airplanes will be reviewed and referenced to compare with existing noise impacts and analysis. Documents such as the FAA Neighborhood Environmental Survey, National Aeronautics and Space Administration’s (NASA’s) proposed Study of Human Response to UAM Vehicle Noise, and other reports on noise from the ACRP will be referenced as appropriate to inform potential noise impacts from emerging aeronautical activities.

As system recommendations are developed, it will be important to consider new airport performance metrics and/or aviation system performance objectives that relate to mitigating or resolving environmental concerns to improve stewardship. Throughout the analysis of expanding airports and/or construction of new facilities, environmental consequences will be a primary evaluation criterion to be evaluated and measured.

3. Sustainability

Airports continuously need to improve sustainability—reflecting the triple bottom line of financial, social, and environmental components of sustainability. GA airports are struggling to address their maintenance and operational issues while environmental and social considerations grow. Implementing sustainability as a key component of the planning process is one way that airports are embracing the need to address environmental and social concerns. The Kimley-Horn team has successful experience with bringing sustainability into the state system planning process in Colorado and Florida to aid individual airports in formulating their sustainability goals, identifying existing measures, identifying new measures, and developing implementation plans. Our involvement in state system planning sustainability enables the WASP to provide guidance to other airports on how to prepare their own sustainability plans. Our team’s Sustainability Lead Mary Vigilante (Synergy) brings extensive experience with sustainability planning for numerous airports. Mary’s expertise ensures that sustainability principles are woven into the foundation of the WASP as it evolves. Sustainability benefits to airports in the system include optimized assets, reduced operating and maintenance costs, improved relationships with the surrounding community and potentially long-term community health outcomes, increased employee satisfaction with their work setting, and improved long-term viability.

4. Emerging Issues/Airspace

As we enter a new era of flight, it is vital that public and private stakeholders work together to provide the regulatory framework and tangible facilities to allow emerging technologies to safely and efficiently transition into commercial markets. Through the WASP, the Kimley-Horn team will provide actionable recommendations addressing how the state, local communities, and airports can proactively prepare for the arrival of various aviation- and aerospace-related emerging technologies. In this way, WSDOT and airports are active participants in the deployment process with tools, guidance, policies, and rules preemptively established instead of prepared in reaction to a situation or event that has already occurred. The policy considerations of the WSDOT Electric Aircraft Feasibility Study can be expanded to encompass the various technologies evaluated by the current WASP to both leverage and update existing work to keep pace with the rapidly evolving nature of aviation and aerospace. Chart 13 on the following page includes a functional graphic we have appropriately titled the “Airport of the Future”, highlighting some of the most important airport elements to consider in the WASP.

5. Outreach and Community Engagement

The Kimley-Horn team looks forward to creating a robust community engagement plan with WSDOT, as we value the input of stakeholders and truly believe we can develop a better plan when there is active public engagement. The WASP presents a unique opportunity to engage not only the TAC (and potential special focus committees), but several other community groups through the CACC’s connections with local communities. The CACC’s local relationships means the WASP can be shared with significantly more stakeholders than traditionally possible—allowing for a larger pool of meaningful public input that can be reflected in the development
of the study. The Kimley-Horn team will work with WSDOT to set clear expectations of the TAC and identify a representative cross section of members who have the technical expertise necessary to provide meaningful input. While we envision the TAC to provide a more technical assessment of project analyses and deliverables, we anticipate that outreach to community groups through the CACC communications consultant will help uncover the issues of greatest concern to aviation stakeholder groups, the traveling public, those living near the airports, and others. The information from the study is technical in nature and therefore it is critical that we deliver it to the CACC in formats appropriate for audiences with varying levels of aviation knowledge and background. We will work with the CACC outreach consultant to convey the information appropriately.

6. Investment in Airports and Aviation Activities

As cited in the 2014 Airport Investment Study and further analyzed in the 2020 WSDOT AEIS, state investment in Washington’s public-use airports is challenged to keep pace with rising demand for commercial air passenger service, air cargo, and GA. In the coming years, aviation demands are anticipated to be driven by “traditional” factors such as economic and population growth as well as the integration of emerging technologies.

Through the WASP, the Kimley-Horn team will focus on identifying strategies to close the gap between available state investment for airports and improvement needs today and through the study horizon. We will work with WSDOT to potentially “right-size” the airport system, revising the current airport classification methodology to help align the needs and expectations of aviation users with the ability of the system to meet those needs. During this process, it is important to carefully consider infrastructure and service requirements associated with Washington’s 17 key aviation activities and the emerging aviation technologies discussed in Key Issue 4, Emerging Issues/Airspace.

### Chart 13 – Airport of the Future

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electric bus and light rail connectivity</td>
</tr>
<tr>
<td>2</td>
<td>Multimodal transportation hub (including transportation network companies/electric air vehicle shared ride drop-off/pick-up)</td>
</tr>
<tr>
<td>3</td>
<td>eVTOL aircraft</td>
</tr>
<tr>
<td>4</td>
<td>Off-site hydroelectric power generation</td>
</tr>
<tr>
<td>5</td>
<td>Off-site geothermal power generation</td>
</tr>
<tr>
<td>6</td>
<td>Off-site biomass refinery</td>
</tr>
<tr>
<td>7</td>
<td>UAS operating below 400 feet above ground level (AGL)</td>
</tr>
<tr>
<td>8</td>
<td>Air cargo handling facility</td>
</tr>
<tr>
<td>9</td>
<td>Electric ground support equipment (GSE)</td>
</tr>
<tr>
<td>10</td>
<td>Alternative propulsion aircraft</td>
</tr>
<tr>
<td>11</td>
<td>Light-emitting diode (LED) taxiway lighting</td>
</tr>
<tr>
<td>12</td>
<td>Short take-off and landing (STOL) aircraft</td>
</tr>
<tr>
<td>13</td>
<td>Electric aircraft charging stations</td>
</tr>
<tr>
<td>14</td>
<td>Air traffic control tower (airspace management/routing considerations)</td>
</tr>
<tr>
<td>15</td>
<td>Electric 150+ passenger jet</td>
</tr>
<tr>
<td>16</td>
<td>Natural lighting in commercial terminal</td>
</tr>
<tr>
<td>17</td>
<td>Green roof</td>
</tr>
<tr>
<td>18</td>
<td>Mixed-use landside development</td>
</tr>
<tr>
<td>19</td>
<td>On-site renewable energy generation with microgrid connectivity</td>
</tr>
<tr>
<td>20</td>
<td>SAF</td>
</tr>
<tr>
<td>21</td>
<td>Centralized deicing facility with glycol runoff collection system</td>
</tr>
</tbody>
</table>