MOJAVE AIR AND SPACE PORT AT RUTAN FIELD

NOTICE OF A SPECIAL MEETING OF THE BOARD OF DIRECTORS

Date: January 3, 2024 Location: Board Room 1434 Flightline, Mojave, California Time: 2:00 p.m.

Attending remotely: Director Balentine 16301 Koch St. Mojave, CA 93501

> Director Barney 711 N. Main St. Hailey, ID 83333

Zoom Video Conference

https://us02web.zoom.us/j/89150248212?pwd=Q2lBbGJBSi9WdzBNWG53V3YwdmxWUT09

Phone: 669 444 9171 Meeting ID: 891 5024 8212 Passcode: 846618

AGENDA

- 1. Call to Order
 - A. Pledge of Allegiance
 - B. Roll Call
 - C. Approval of Agenda
- 2. Community Announcements and Public Comments on Items not on the Agenda
- 3. Consent Agenda (Staff recommends approval of consent items by one motion.)
 - A. Minutes of the Regular Board Meeting of December 19, 2023
- 4. Action Items
 - A. Award on call Engineering Contract -Mead & Hunt
- 5. Reports
 - A. Director of Administration
 - B. Director of Operations
 - C. Chief Executive Officer
 - i. Taxiway A Rehabilitation
 - ii. Inland Port Update (CEO)

- iii. Water System Update (CEO)
- iv. Hangar Development Update (CEO)
- D. Board Committees

6. Director Comments on Items Not on the Agenda

7. Closed Session

- A. Existing Litigation (Govt Code 54956.9): Welton v. MASP
- **B.** Potential Litigation (Govt Code 54956.9): Unnamed Case
- C. Personnel Evaluation: CEO

8. Closed Session Report

Adjournment

This Agenda was posted on December 29, 2023, by Jason Buck.

This meeting will be conducted in person and via zoom video conference. If you participate via zoom, please:

- **KEEP YOUR MIC MUTED** at all times that you are not making a comment in order to minimize noise during the meeting. Unmute only to make a comment on an agenda item.
- The general rules regarding public comment apply to those using zoom.
- Comments may also be made in the zoom chat function or via email to the Board Clerk at Lynn@mojaveairport.com prior to the start of the meeting.

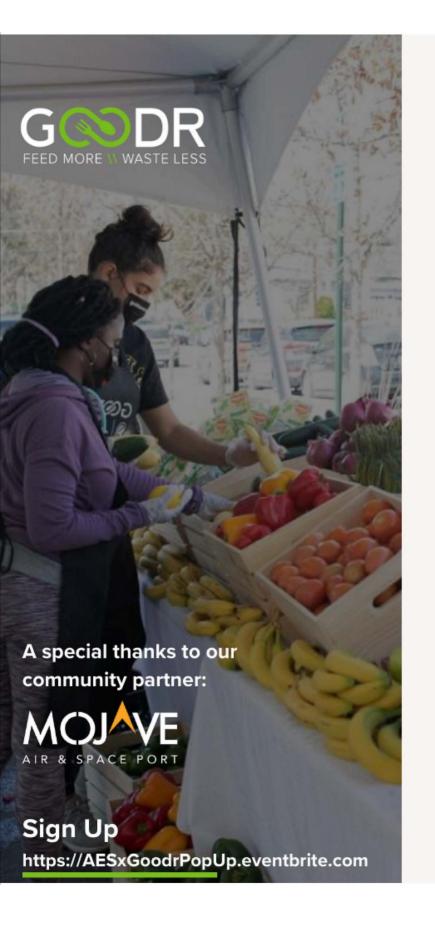
ADA Notice: Persons desiring disability-related accommodations should contact the District no later than forty-eight hours prior to the meeting. Persons needing an alternative format of the agenda because of a disability should notify the District no later than seventy-two hours prior to the meeting. All inquiries/requests can be made by phone at (661) 824-2433, in person at 1434 Flightline, Mojave, CA, or via email to Lynn@mojaveairport.com

<u>Copy of Records</u>: Copies of public records related to open session items are available at the administrative office of the District at 1434 Flightline, Mojave, CA.

<u>Public Comments:</u> Members of the public may comment on items on the agenda before the Board takes action on that item, or for closed session items, before the Board goes into closed session. Comments on items not on the agenda, and over which the Board has jurisdiction, may be made under "Public Comments on Items not on the Agenda," but the Board may not take action on any issues raised during this time. All comments by members of the public are limited to three minutes.

MISSION STATEMENT

FOSTER AND MAINTAIN OUR RECOGNIZED AEROSPACE PRESENCE WITH A
PRINCIPLE FOCUS AS THE WORLD'S PREMIER CIVILIAN AEROSPACE TEST CENTER
WHILE SEEKING COMPATIBLY DIVERSE BUSINESS AND INDUSTRY





PRESENTS

The Goodr Pop-Up Grocery Market



A Free Shopping Experience.

Thursday, December 14, 2023 1pm - 4pm

Stuart O. Witt Event Center 1247 Poole St. Mojave, CA 93501 (Next to the Gym)



COMMUNITY ANNOUNCEMENT

The airport's 2nd Annual Toy Drive Christmas Tree Event was held on December 16, 2023, between 12:00-4:00 pm. The Mojave CHP office and MASP joined forces to create a family fun filled day for Mojave and its surrounding communities with Santa arriving by helicopter.

The CHiPs for KIDS Toy Drive collected hundreds of toys; the exact count isn't available yet. We gave out almost eight hundred (800) Toy Tickets, one ticket per child. Families showed up and the children were able to choose a toy for themselves. Most children left with at least two toys each.

This year we had almost three hundred (300) families participate in the free raffle and raffled off thirty-eight (38) decorated Christmas Trees. We also raffled off two (2) 1-month free gym memberships, along with twelve (12) pounds of Costco coffee.

The families had fun taking pictures with Santa and the elves. Children enjoyed getting their faces painted and receiving balloon animals. Everyone enjoyed hot chocolate, coffee, cookies donuts and lemonade while listening to the Christmas music. Families sat and relaxed at tables while children played with their toys.

We had five (5) MASP Tenants participate in our first Tenant Christmas Tree Competition; National Test Pilot School, Race Communication, Stratolaunch, Virgin Galactic, and Universal Hydrogen. The winner and name that will be on a plaque for 2023 is: Universal Hydrogen.

A special thank you to the companies who provided support and supplies that were greatly appreciated and to all the volunteers who worked so hard to make this event a success. (MASP Staff, CHP Officers/volunteers, The Reapers, The Diaz Family, The Vargas Family, Sussan and Alvaro Sotelo, The Ulloa Family, Mission Linen Supply, Balloons Twisting & Face Painting, Home Depot, Starbucks, Porter Concrete, American Electrical, Arrow Engineering, Bragg Crane, Costco, Elevation Fitness, Handel Plumbing, Little Miss Mojave, Mojave Little league, Mojave Elks, Mortenson, Pepsi, Silver Queen Mine, Southstreet, Spudnut Donuts, Scaled Composites, Stratolaunch, Terra-Gen, and Vast Space)

If anyone would like to volunteer for next year, please call me at 661-824-2433 x 222.

Lynn Johansen Contracts Manager





Page **2** of **6**



Volunteers







<u>Universal Hydrogen – Tenant Christmas Tree Contest Winner</u>

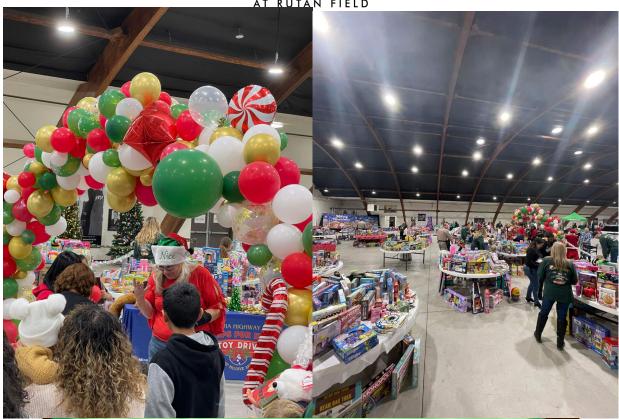














BOARD OF DIRECTORS

MINUTES OF THE REGULAR MEETING ON DECEMBER 19, 2023.

1. CALL TO ORDER

The meeting was called to order on Tuesday, December 19, 2023, at 2:00 p.m. by Director Morgan.

A. Pledge of Allegiance: Counsel Nave led those assembled in the Pledge of Allegiance.

B. Roll Call:

Directors present: Allred, Balentine, Morgan.

Directors absent: Barney, Coleman

Staff: DOO Sewell, DOA Rawlings, DOF VanWey, DO Fuels Smith, Counsel Nave, Contracts Manager Johansen, **Others present via Zoom:** DPSS Spandorf, Nicole Altman, Joyce Media, C. Panko, A. Diaz, Eric Shwartz, Jenna Edwards, and one other unidentified participant.

C. **Approval of Agenda:** Upon motion by Director Balentine, seconded by Director Allred, the Board unanimously approved the agenda.

2. Community Announcements/ Public Comments not on the Agenda

- Cathy Hansen commented on the Plane Crazy and how fabulous it was, she also talked about the Toy/Tree drive and asked the airport to include the Chamber of Commerce and the Elks Lodge, the voyager flight, the removal of Hangar 927, as well as potentially bringing back the indoor fly-ins at the Airport.
- Director Morgan commented on the great turnout of Plane Crazy Saturday.
- Dean Soest requested to be allowed to maintain occupancy of Hangar 948.
- Rodger Hilyard spoke on behalf of Dean Soest
- Margarite Lewis spoke on behalf of Dean Soest.
- Contracts Manager Johansen spoke on the AES/ Goodr Food Drive on Thursday December 14, 2023, they gave away 300 bags of canned and dried foods with produce. She also spoke about the Toy Drive/ Christmas Tree Event on December 16.
- Eugene Lewis spoke on behalf of Dean Soest.

3. Consent Agenda

Upon Motion by Director Balentine, seconded by Director Allred, the Board unanimously approved the Consent Agenda.

- A. Minutes of the Regular Board Meeting of December 5, 2023
- B. Check Register dated December 14, 2023: \$63,760.00

4. Action Items

A. The Cascade Trust, Bldg. 10 Lease Assignment Grace One Holdings, Inc.

CEO Reid briefed the Board on the Lease assignment. The Board had some questions regarding the activities being performed in Bldg. 10 which were answered by the owner. Upon motion by Director Balentine, seconded by Director Allred, the Board unanimously approved the lease assignment of Bldg. 10 to Grace One Holdings, Inc.

5. Reports

A. Chief Executive Officer

CEO Reid presented the CEO report to the Board.

B. Taxiway A Electrical Rehabilitation

CEO Reid updated the Board on the Taxiway A Electrical Rehabilitation

C. Inland Port Update (CEO)

No Update

D. Water System Update (CEO)

CEO Reid updated the Board on the Water System.

E. Hangar Development Update (CEO)

- CEO Reid provided updates will be available February of 2024.
- F. Highlights (CEO)
 - CEO Reid briefed the board on the highlights of the last two weeks.
- G. Board Committees
 - No Board Committees

6. Director Comments on Items not on the Agenda

- Director Balentine commented on the footings being put in on Oak Creek Road, and wanted to see if the airport was aware of the construction considering the location of the footings being approximately 1.5 miles from the approach end of Runway 8.
- Director Morgan asked Lynn to make a comment regarding Cathy's comment regarding including the city members.
- Director Morgan spoke regarding the few that spoke on behalf of Dean Soest, and asked for other thoughts or comments on the situation.

7. Closed Session

- A. Existing Litigation (Govt Code 54956.9): Masten Space Systems Bankruptcy; Welton v. MASP; Virgin Orbit Bankruptcy
- B. Potential Litigation (Govt Code 54956.9): MASP v. Grote, unnamed case
- C. Personnel Evaluation: CEO

8. Closed Session Report

In closed session, Counsel and the Board did not discuss the Masten Bankruptcy or the Virgin Orbit Bankruptcy. Counsel updated the Board on the potential litigation MASP v. Grote and discussed the unnamed case. The Personnel Evaluation of the CEO was not conducted. No action was taken in closed session.

ADJOURNMENT

ATTEST	Diane Barney, President
Jimmy R. Balentine, Secretary	

There being no further business to come before the Board, the chair adjourned the meeting at 3:14 p.m.



TO: Board of Directors

FROM: Tim Reid, General Manager/CEO

SUBJECT: Engineering Service Contract

MEETING DATE: January 3, 2024

Background:

Our civil engineering contract with Mead & Hunt, and with Kimley-Horn both expired at the end of December 2023. Mead & Hunt was originally contracted to perform on-call engineering services for aeronautical design projects, whereas Kimley-Horn provided on-call engineering services for aerospace projects. Both firms are well versed in their areas of expertise, however, it is inefficient for MASP to have two different entities working on projects that affect the Air & Space Port. Both entities entered contracts with the Airport December 4, 2018, and both contracts expired at the end of 2023.

To streamline our planning efforts, and to reduce costs due to redundant efforts and frequent coordination between various contractors, MASP put out an on-call engineering Request for Proposals, with a requirement for the interested firms to provide both expertise in aviation AND aerospace consulting services in order to eliminate duplicate efforts and to increase both efficiency while reducing costs. Three firms have responded, and I have attached their individual transmittal letters that summarize their relevant experience.

All three firms have demonstrated the capability of handling the Airport's breadth of engineering and planning services, to include ACIP, AIP applications, Caltrans applications, environmental assessments, airside/landside planning, Part 77 evaluation, ALUCP management and master planning. All three firms have demonstrated experience working on spaceport projects and are all well-versed with Mojave at some level since they all have historically provided some level of contractual work with the Airport.

After careful review, Staff recommends extending one five-year contract for both aviation aerospace on-call engineering services to Mead & Hunt, based on their qualifications, experience working at Mojave, and team/sub-team composure which the selection committee is confident will be in the Airport's best interest for projects over the course of the next 5 years. Some of the comments from staff regarding our decision:



AIR & SPACE PORT

AT RUTAN FIELD

- Mead & Hunt has a long work and project history at Mojave and enjoy a high level of familiarity and understanding of our needs. Staff advise over the past contract period Mead & Hunt has provided great services and is very communicative and helpful with addressing needs communicated by airport staff.
- Chuck McCormick, the Project Manager for Mead & Hunt, has an extensive background working with the local ADO as a former ADO employee. This has come in extremely helpful with understanding the nuances of this office. This helps with both obtaining FAA ACIP Grants, but also with compliance and finding creative solutions to regulatory challenges.
- The Airport Planning Lead, Kevin Smith, is the former Airport Director at the Truckee/Tahoe Airport, which is also a special district in California. His background and insight will prove to help with the planning activities at Mojave and will prove to be an asset to assist with GA development and aiding with GA issues.

• Sub-contractors:

- BRPH, which is the aerospace planning partner for the Mojave Payload Processing Facility project.
- o ILS is the sub responsible for the aerospace planning consulting:
 - Includes the former Pacific Spaceport Complex's Director Milton Keeter.
 - ILS worked with Spaceport America to create a spaceport user's guide and scheduling techniques/procedures used at that spaceport.
 - Completed Spaceport America's Range Safety Manual.
 - ILS has experience working at Mojave with Stratolaunch.
- Value-Added Programs Mead & Hunt proposed working with the Airport to help with some of the more complex problems and issues, including assisting with land development planning and revenue diversification, assist with community outreach and engagement programs, and working with the Airport to find additional revenue strategies that work for Mojave.
- Rates Included in this document are Exhibits B, C, D, & E to demonstrate the cost of contract services. As you will see with Exhibit B, our current rates with Mead & Hunt, and their proposed rates for the term of this contract (Exhibit C) there is an incremental increase in rates for services (5% from the Billing Rate Schedule for 2023). The Rate Schedules for ILS and BRPH both appear appropriate (Exhibit D & E).



Impacts:

<u>Fiscal:</u> The proposed contract will result in long-term cost savings by reducing the number of on-call engineering firms down to one firm, resulting in a reduction of duplicative efforts and costs from coordination meetings.

For example, the Airport currently meets bi-weekly with both Mead & Hunt and Kimley-Horn to discuss projects, deliverables, etc. Mead & Hunt also attends the monthly FAA ADO meeting where we discuss projects, deliverables, and ACIP projects. Kimley-Horn attends the FAA AST meetings where we discuss various issues and concerns regarding spaceport operations and projects.

Another example of cost savings: When MASP employed a contractor to assist with seeking out, and obtaining, funding and grants for projects, we were paying for both the consultant and our on-call engineering firms for coordination meetings. Mead & Hunt has on its staff a grants expert in-house that assists with seeking out grant opportunities, thus eliminating the need to retain a grant consultant, and eliminating coordination meetings where we pay for both entities to coordinate.

Example:

The Airport meets bi-weekly with Kimley-Horn and Mead & Hunt to discuss projects, deliverables, and status updates. With two Engineering firms:

Kimley-Horn

Analyst \$155.00 Professional \$240.00 \$205.00 Sr. Professional \$300.00

> Total Cost per 1- hour Meeting: \$900.00 Total Cost for Two Monthly Meetings: \$1,800

Kimley-Horn Annual Costs for Meetings: \$21,600

Mead & Hunt

Sr. Project Engineer \$272.00 Project Engineer \$235.00



Total Cost per 1-hour Meeting: \$507.00 Total Cost for Two Monthly Meetings: \$1,014

Mead & Hunt Annual Costs for Meetings: \$12,168

If the Airport were to combine services to under one contract, we would reduce our meeting costs from \$33,768 to approximately half that cost, with better communication, coordination, and less time spent by staff coordinating planning and engineering efforts.

Environmental: None

Legal: None

Recommended Action:

Authorize CEO to negotiate, and execute, a 5-year on-call Engineering Service Contract with Mead & Hunt.







On-Call Engineering Services

for Mojave Air and Space Port at Rutan Field

November 20, 2023

Mr. Tim Reid, AAE, General Manager/CEO Mojave Air and Space Port at Rutan Field 1434 Flightline Mojave, CA 93501



Subject: Proposal for On-Call Engineering Services at Mojave Air and Space Port at Rutan Field

Dear Mr. Reid and Selection Committee Members:

The Mead & Hunt team is excited by this opportunity to continue our work with the Mojave Air and Space Port (MASP or Airport) to enhance and improve MASP position as a world-renowned airport, spaceport, and flight research center. MASP is a facility like no other. It is unique in the aerospace and aviation industry. To that end, we have assembled a great team of passionate aerospace and aviation professionals to assist MASP as you enhance your aerospace leadership position, test and launch the latest cutting-edge technology, and serve the current and future needs of your general aviation (GA) pilots and users. We hope your consideration of the following elements will demonstrate our expertise as well as our passion to support MASP in your air and spaceport endeavors. We offer the following:

- A locally based, diverse team of aviation and aerospace experts, including Mead & Hunt partners BRPH, Integrated Launch Solutions (ILS), Flight Tech Engineering (FTE), Twining, Psomas, and Caskey Biological Consulting (Caskey).
- Unparalled airport and spaceport experts with extensive engineering, planning, GA, business development, hangar facilities, and public agency governance experience.
- Experts with full-service capabilities to provide spaceport planning, engineering, and licensure needs.
- A project manager with over 36 years of Federal Aviation Administration (FAA), aviation, and project management experience, including access to hundreds of aviation subject matter experts to anticipate and answer your engineering, planning, and aerospace needs.
- A proven and familiar team, whose members have forged strong relationships with FAA staff at Headquarters, Western Pacific Region, Los Angeles Airport District Office (ADO), and California Department of Transportation (Caltrans) Division of Aeronautics.

We are a "one-stop-shop" for all the services listed in your Request for Proposals (RFP) and Exhibit 1. We look forward to this opportunity to continue providing engineering, environmental, and planning services to the Mojave Air and Space Port. Our team is prepared to work side by side with the MASP staff and stakeholders to identify and deliver the most strategic, cost-effective, and sustainable long-term program to advance your spaceport and aerospace needs and aspirations. Our team expertise and capabilities will provide the right fit for your needs.

Please accept this letter as confirmation that Mead & Hunt accepts and will comply with each of the terms in the District's standard contract. In addition, and as required, Mead & Hunt agrees to have any disputes regarding any contract venued in Kern County of the Eastern District of California. Chuck McCormick and Jeff Leonard are authorized to negotiate on behalf of and to bind Mead & Hunt in an agreement for the required services. Thank you again for your consideration of our proposal.

Sincerely,

Mead & Hunt, Inc.

Chuck McCormick

Project Manager/Point of Contact

chuck.mccormick@meadhunt.com | 909-467-8576

harla & maland

3110 E Guasti Road, Suite 330, Ontario, CA 91761

leff Leonard, PE

Principal-in-Charge

jeff.leonard@meadhunt.com | 707-284-8676 1360 19th Hole Drive, Suite 200, Windsor, CA 95492

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SECTION 1

EXPERIENCE OF THE FIRM



Firm Overview

Who We Are

Mead & Hunt is an employee-owned firm with more than 1,200 engineers, architects, scientists, planners, and support staff in offices nationwide. Approximately 250 of our employees focus on airports exclusively. We have been serving clients in both the public and private sectors since our founding in 1900.

Responsive

Strong two-way communication is imperative to the success of our projects. We place the utmost importance on listening to and understanding your needs; together, we determine the best possible solution. The depth of our staff allows us to complete many projects simultaneously and stay on schedule and budget.

Innovative

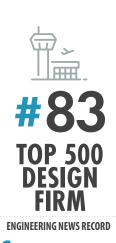
To meet our country's aggressive and changing needs, Mead & Hunt is continually expanding to offer innovative engineering, planning, and design services to meet a multitude of challenges. Annually, we are nominated for and win industry and trade awards for the creative solutions we provide clients.

Growing

For several consecutive years, Engineering News Record has ranked Mead & Hunt as a top 500 A/E design firm and a "Top 25 in Airports" firm. In addition, Mead & Hunt received the prestigious American Association of Airport Executives' Corporate Cup of Excellence award. We were also ranked in the top 10 "Best civil engineering firms to work for" in the nation by CE News magazine.









CE NEWS

Experienced

Our record of successful project execution and ability to provide continuity and quality of service is important. Our multidiscipline personnel are experienced professionals able to provide top-of-the-line architecture, engineering, and scientific solutions for your most challenging projects. Mead & Hunt's principals are highly-qualified, dedicated, and fully involved in providing experienced leadership in undertaking your projects. The following page lists the complete suite of services and resources available to our MASP on-call engineering team.

Diversity and Inclusion

Mead & Hunt is committed to creating, fostering, and preserving a culture of diversity, inclusion, and belonging. The collective sum of the individual differences, life experiences, knowledge, inventiveness, innovation, self-expression, unique capabilities, and talent that our employees invest in their work represents a significant part of our culture, reputation, and company achievement. We embrace all the differences, both visible and invisible, our employees bring to the firm; combined, everyone's uniqueness makes us a stronger company.

We pride ourselves on foresight and innovation. We recognize that our growth in the industry is dependent upon the inclusion of a diverse team to capture targeted, contemporary approaches. We invest human and financial resources to build adept teams and engage relevant technologies that provide optimized

outcomes for our clients. Our company makes strides to enhance accountability for our policies and work products, remove all barriers to equitable access to opportunities, and place increased attention on our clients' unique circumstances in their airports and the surrounding communities.

Disadvantaged Business Enterprise Participation

Mead & Hunt is committed to DBE programs and has a strong track record of seeking out and including DBEs in project work and proposals. As such, we will commit to the MASP that all efforts will be made to include DBE firms and business in our project work. As specific project work becomes more defined under this on-call agreement, we will consult the network of DBEs we currently work with, and have worked with in the past, to assist on projects where their unique talent and expertise will benefit MASP endeavors.

Distance from Mead & Hunt Offices to the Airport

Mead & Hunt will be working primarily out of our Ontario, CA office, with support from the BRPH Palmdale, CA office. Both are

within driving distance of MASP, allowing Mead & Hunt personnel to



Due to our close office proximity in Ontario and Palmdale, travel and logistics costs will be minimal to serve the needs of MASP.

be on site promptly, if necessary. This is paramount to providing quality service and reducing costs. The proximity map below shows the distance and approximate drive time to the Airport.

Anticipated Drive Time THE MEAD & HUNT TEAM to MOJAVE AIR & SPACE PORT.



source: Google Maps, 2023.

Aviation Services



BUSINESS SERVICES

- Program & Project Management
- Passenger Facility Charge
- Application/Administration
- Cost-Benefit Studies
- Business/Strategic Plans



AIR SERVICE CONSULTING

- Air Service Strategic Plans
- Airline Service Proposals
- Catchment Studies (i.e., leakage analysis)
- Air Cargo Development Strategy Studies
- Visitation/Destination Analyses (GPS location-based data)
- Migration Analyses
- Market Performance, Airfare & Schedule Monitoring
- US DOT Small Community Air Service Development Program **Grant Application**



PLANNING

- Aviation System Plans
- Master Plans
- Airport Layout Plans
- Land-Use Planning & Zoning
- Site Selection Studies
- Feasibility Studies
- Cargo Planning
- Land Acquisitions
- Air Mobility
- Electrification & Microgrids
- Spaceports
- Community Outreach & Education
- Forecasting
- Terminal & Landside Planning
- Approach & Departure Analysis



ENVIRONMENTAL PLANNING

- Environmental Assessments
- Environmental Impact Statements
- Wetland Mitigation
- Part 150 Noise Studies
- Stormwater & Water/Flood Plain Studies
- Air Quality Studies
- Historic Resource Eligibility Studies
- Deicing Analyses
- Wildlife Hazard Management Services



SUSTAINABILITY & RESILIENCY PLANNING

- Master Plans
- LEED, ENVISION & WELL
- Energy Audits
- Commissioning
- Waste Management
- Carbon Neutral/ **Removal Studies**
- Greenhouse Gas Inventories & Reduction
- Net Zero Plans
- Climate Action
- Sustainability Tracking



TECHNOLOGY

- Technology Planning
- Airport Technology Systems
- Network Infrastructure Design
- Cybersecurity
- Electronic Security Systems



• Enterprise GIS **SOCIAL &**

- **ENVIRONMENTAL STEWARDSHIP** • Diversity, Equity, Inclusion &
- **Belonging Studies** • Environmental & Social
- Governance Disadvantaged Business Enterprise/Airport Concession **Disadvantaged Business**

Enterprise Plans



ARCHITECTURE & BUILDING ENGINEERING

- Terminals
- Cargo & Support Facilities
- Aircraft Hangars
- Airport Traffic
- Air Traffic Control Towers
- Maintenance Buildings
- Aircraft Rescue & Firefighting Facilities
- Fixed Base Operator Facilities



AIRFIELD & LANDSIDE DESIGN

- Runways, Taxiways & Aprons
- Roadway & Parking
- Drainage
- Site Development
- Pavement Maintenance
- Life Cycle Cost Analyses



ELECTRICAL SYSTEMS & NAVIGATIONAL **AIDS DESIGN**

- Airfield Lighting & Signage
- Electrical Vaults
- Air Traffic Control Tower Instrumentation & Control
- Solar Analysis
- Systems Analysis & Inventory
- Perimeter Security Systems



CONSTRUCTION SERVICES

- Administration & Management
- On Site Observation
- Survey Control & Project Layout



ENGINEER, PROCURE & CONSTRUCT

- Waste to Energy
- Microgrids
- Renewable Natural Gas
- Hangars
- Water, Wastewater & Water Reuse

FAA Experience and AIP Expertise



Mead & Hunt has in-depth knowledge of FAA planning and engineering design standards, policies, and procedures. We have an excellent reputation with the FAA Los Angeles ADO and the Western Pacific

Region for tackling difficult planning issues. We have built our reputation based on hundreds of planning and engineering assignments for the ADO and nationwide. The FAA recognizes Mead & Hunt as skilled problem solvers who answer our client's challenges while meeting FAA design criteria.

Throughout our planning and engineering practice we work diligently and effectively to maximize cost-effective design and construction of airfield improvements, minimizing disruption of essential airport services, coordinating with airport users and tenants, and communicating with the FAA.

Through our knowledge of FAA procedures and regulations, we can increase your ability to obtain and use grant funds for your projects. By preparing the necessary paperwork, we can reduce the staff time you devote to administering grants. We routinely assist our clients in the preparation of Airport Capital Improvement Plans (ACIPs) and Airport Improvement Program (AIP) grant application packages. Our grant packages are specifically tailored to maximize our clients' airport development opportunities by optimizing the use of available FAA funds.

Key FAA personnel for the Los Angeles ADO whom Mead & Hunt has experience working with on a routine basis include:

- Cathryn Cason, ADO Manager
- Manson Wond, Assistant ADO Manager
- Victor Globa, Assistant ADO Manager
- Joshua Baey, Civil Engineer
- Maurice Light, Community Planner
- Gail Campos, Environmental Protection Specialist

Compliance with FAA Grant Programs

Mead & Hunt aviation professionals are well-versed in FAA grant program requirements. In the past ten years, our firm has completed more than 600 airport design and engineering assignments, representing more than \$1 billion in public airport construction. These assignments were primarily FAA AIP grant projects, along with state-funded projects and some privatelyfunded work.

Ability to Meet State and Federal Requirements

Mead & Hunt aviation professionals routinely work with the FAA's Los Angeles ADO and are well versed in their requirements. Mead & Hunt staff will work closely with you and FAA staff to prioritize and schedule your project and provide timely, cost efficient planning and engineering solutions for your airport improvement needs.

Chuck McCormick will provide coordination with the FAA, where he has formed strong relationships during his twenty years working for the FAA at the Los Angeles ADO. He knows how to maximize project funding and project efficiency. Chuck also has in-depth knowledge of FAA regulations, policies, and procedures. In addition, his long-established working relationships and credibility with FAA staff give us the ability to encourage interest and support for our clients' projects. Chuck has also established solid working relationships with Los Angeles ADO staff and will bring his understanding of FAA Advisory Circular (AC) standards and specifications to your projects. All of our efforts will be in coordination and under the direction of MASP leadership.

Familiarity with FAA Advisory Circulars and Standards

Our team has worked directly with the FAA on hundreds of projects over many years, covering all aspects of aviation-related planning, environmental evaluation, engineering, and airport facilities. The members of the Mead & Hunt team understand the importance of providing planning and design/engineering services that comply with appropriate FAA AC standards.



Caltrans Aeronautics Group Experience

Mead & Hunt has built a strong working relationship with Caltrans Division of Aeronautics, including Tarek Tabshouri,

Aeronautics Program Director, and Dan Gargas, Aviation Safety Officer. It helps to understand how the agency is structured and what its goals are. Aligning project objectives and expectations with the Division fosters a collaborative environment that, in turn, benefits MASP. This strong relationship with Caltrans has been built on trust and effective communication with a focus on results.

Other State and Federal Agency Experience

In addition to working with FAA and Caltrans, our project team members frequently work with Federal and State environmental agencies to avoid and minimize potential effects, including the State Historic Preservation Officer (SHPO), US Army Corps of Engineers (USACE), US Fish and Wildlife Service, and California Department of Fish and Wildlife.

SECTION 2

PROJECT PERSONNEL

Organizational Chart

Project Team

- Mead & Hunt мн
- **BRPH** BR

ET

- Integrated Launch Solutions
- **Twining Psomas** PS
- Flight-Tech Caskey Biological Consulting



AIR & SPACE PORT

AT RUTAN FIELD

Tim Reid, AAE, General Manager/CEO





Project Manager and Point of Contact MH | Chuck McCormick



Principal-in-Charge мн | Jeff Leonard, PE



Spaceport Licensing Services Lead IL | Cheree Kiernan



Spaceport Planning and Design Services Lead

BR | Chris Miller, PE



Airport Planning Lead MH | Kevin Smith, AAE



Quality Assurance/Quality Control MH | Scott Van Gompel, PE



Support Services

Geotechnical and **Materials Testing** TW | Paul Soltis, PE, GE

Land Surveying

PS | Brocton Miller, PLS

Outreach and Sustainability

мн | Maranda Thompson

Grant Funding and Applications

мн | Jamie Kendrick



Airport Planning Services

Master Planning

MH | Corbett Smith, CM MH | Patricia Song

Land Use Compatibility

мн | Maranda Thompson

Environmental Planning/ Compliance

мн | Lisa Harmon

Airports Geographic Information System

мн | Ryan Meyer, GISP

Airspace Analysis FT | Alec Seybold



Spaceport Services

Spaceport Planning and Design Services

BR | Chris Miller, PE **BR** | Jason Abbott, PE **BR** | Wally Schroeder, PE

BR | Derek Nolek, PE, LEED AP BR | Jimmy Woodard, PE, LEED AP BD+C

> BR | Brian Sayre, PE, SE **BR** | Susan Schiller, PE

Spaceport Licensing Services

IL | Cheree Kiernan IL | Chuck Wagner, PE IL | Milton Keeter



Engineering Services

Civil Design

MH | Rafael Gonzalez, PE MH | Scott Swonke, PE мн | Jacob Nunez, EIT

Electrical Design

MH | Bill Ropposch, PE MH | Chris Hunter, PE

Construction Administration

мн | Rafael Gonzalez, PE мн | Greg Mead PS | Sean Smith, PLS TW | Sammy Daghighi, PE мн | Jacob Nunez, EIT

Drainage Improvements MH | Kari Nichols, PE

SECTION 2 · PROJECT PERSONNEL

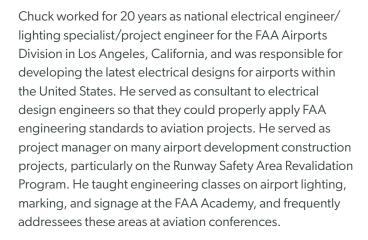
Resumes



Chuck McCormick

Project Manager and Point of Contact

Chuck McCormick has more than 35 years of diverse aviation experience, primarily for Southern California airports. He has significant experience designing airport electrical systems for both civilian and military airfields. He is responsible for preliminary and final designs as well as construction administration of airfield lighting systems, navigational aids (NAVAIDs), security systems, and other special systems associated with airfield improvement projects for both commercial service and GA airports.



EDUCATION

• BS, Electronics and Computer Engineering, California State Polytechnic University–Pomona (1987)

REGISTRATIONS/CERTIFICATIONS

• Private Pilots Certificate, Single Engine Land

Jeff Leonard, PE

Principal-in-Charge

Jeff Leonard oversees many of Mead & Hunt's most challenging projects, especially when dealing with multiphased, multi-year timelines. His responsibilities include overseeing the



southwest aviation business unit planning and engineering departments. He provides close coordination with clients, the FAA, public utility agencies, contractors, and airport users.

Jeff has more than 21 years of experience with complex aviation projects at military, air carrier, and GA airports, mainly in California. Jeff is proficient in the design and construction administration of both airside and landside improvements, including aircraft rescue and firefighting (ARFF) buildings; runway, taxiway, and access road construction and rehabilitation; aircraft wash racks; and deicing facilities. His experience varies from small, fast-track projects to largescale projects with multi-year timelines involving multiple contracts and multiple contractors on-site working together.

leff understands the balance of preparing contract documents that minimize operational impacts while keeping the project constructible. He excels at scheduling timelines for project deliverables, as well as estimating construction costs, preparation of Construction Safety and Phasing Plans (CSPPs), and daily construction oversight. Jeff oversees many of Mead & Hunt's most challenging projects, especially when dealing with multi-phased, multi-year timelines.

EDUCATION

• BS, Civil and Environmental Engineering with Construction Management Emphasis, University of Wisconsin-Madison (2003)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - California, Arizona, Hawaii, Nevada, and Oregon

Mead

Mead Hunt

Lisa Harmon

Environmental Planning/ Compliance

Lisa Harmon is a project manager with more than 20 years of experience in environmental planning, compliance, and wildlife hazard management. She



has spoken on both topics at numerous public meetings and regional conferences, including meetings of the American Association of Airport Executives (AAAE) and the North American Bird Strike Committee. Lisa worked with numerous airport clients to develop environmentally sustainable resource management plans and mitigation measures that fulfill federal, state, and local compliance requirements while addressing the ever-increasing issues of aviation safety. Examples of such plans include management and mitigation plans associated with biological resources, forest resources, wetlands, and cultural resources.

Lisa has assisted airport clients in working with and providing outreach to local agencies in an effort to coordinate land use compatibility policies and programs to address wildlife hazard management challenges on and near airports. She is skilled in developing and conducting public outreach activities for transportation development projects. Her expertise in implementing document quality control programs provides for information that is consistent, defensible, and fulfills client and regulatory requirements.

Lisa has managed wildlife hazard assessments and management plans conducted throughout the United States. She has provided public outreach and policy support for the wildlife management and aviation airports located in some of our nation's most environmentally sensitive areas, including Aspen/Pitkin County Airport, Jackson Hole Airport, and more than two dozen airports throughout California.

EDUCATION

- MS, Transportation Management, Mineta Transportation Institute, San Jose State University (2012)
- Certification, Transportation Management, University of California-Davis Extension Program (2009)
- Certification, Publishing, University of Denver Publishing Institute (1988)
- BA, English Literature, Wells College (1985)

Kevin Smith, AAE

Airport Planning Lead

Kevin Smith has 27 years of comprehensive experience in the aviation industry and local government, including his most recent role as General Manager of the Truckee-Tahoe Airport District



(TTAD). Kevin's experience encompasses strategic planning, master planning, community engagement, and economic development. Kevin has served as project lead on various strategic plans, city general plans, and airport master plans.

Kevin's experience managing and directing airport and municipal public agencies will provide strong airport policy and local government perspective to planning and research projects, as well as collaboration with airport stakeholders and local, state, and federal agencies. He has extensive experience serving and supporting elected and appointed boards, councils, and commissions. He regularly counsels airports on master planning, airport administration challenges, FAA coordination, hangar leasing and development, revenue diversification, rates, fees, and charges, aviation and non-aviation land use planning, noise, and annoyance mitigation, public outreach strategies, support of elected officials, and strategic planning.

Kevin has extensive experience working with airport stakeholders and communities impacted by airports. His experience also extends to municipal government as a City Planner, Community Development Director, and Assistant City Manager. He has held positions in the Fixed Base Operator (FBO) industry at Truckee-Tahoe Airport (TRK) and with Million Air.

EDUCATION

- MS, Urban Planning and Resource Management (Geography), Brigham Young University (1997)
- BS, Planning and Resource Management, Brigham Young University
- AA, Spanish, Ricks College (1993)

REGISTRATIONS/CERTIFICATIONS

- Accredited Airport Executive (AAE)
- Instrument Rated Private Pilot
- Aircraft Owners and Pilots Association (AOPA)



Mead xHunt

Mead Hunt

Scott Van Gompel, PE

Quality Assurance/ **Quality Control**

Scott Van Gompel has more than 22 years of experience providing engineering and project management services at commercial and general aviation airports in the FAA's Western-Pacific Region of the United States. He has been the Aviation Engineering Department Manager since 2020.



Scott is well-known for his attention to detail and focus on communication at all stages of the project. These traits, combined with his extensive experience, help Scott to anticipate and meet our design team's needs. Scott's approach to quality management is focused on working with the design team to establish a quality program that is proactive. He utilizes effective communication and acts as a sponsor's representative to the design team. Over his career, Scott has completed more than 200 engineering and planning projects at Part-139 and GA airports throughout the southwest and the country. He seamlessly aligns the design team to effectively develop a quality working experience with the client's goals and expectations.

EDUCATION

• BS, Civil Engineering, University of Wisconsin-Milwaukee (2005)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - California and Arizona

Maranda Thompson

Outreach and Sustainability/ Land Use Compatibility

Maranda Thompson is an accomplished project manager and is well regarded by her clients, peers, and project team members for her superior



communication and organizational skills. Maranda excels in managing projects with aggressive and firm timeframes. These managerial qualities enable Maranda to effectively lead her projects to successful completion and adoption.

Maranda has over 18 years of experience in the practice of aviation planning. She possesses considerable experience in airport land use compatibility planning in the State of California. Maranda has spoken on the topic at several regional conferences and numerous public meetings. Maranda's proficiency in airport land use compatibility planning makes her particularly competent in performing complex safety and noise impact assessments of various types of land use projects proposed within vicinity of a wide range of commercial and GA airports.

Maranda is skilled in performing environmental analyses and preparing environmental documents under the California Environmental Quality Act (CEQA) in support of Airport Land Use Compatibility Plans (ALUCPs). She is keenly aware that although compatibility plans are not regulatory in nature, the plans have the potential to restrict future development around an airport. Maranda has significant experience in assessing potential impacts to local jurisdictions' general plans, specific plans, and zoning ordinances. Other areas of Maranda's expertise include developing airport land use policies and procedures, managing public outreach efforts, and report writing.

EDUCATION

• BA, Double Major, Environmental Planning and Economics, Sonoma State University-California (2000)

Jamie Kendrick, AICP

Grant Funding and Applications

Jamie Kendrick has 22 years of experience in transportation planning, policy, and project management. He brings special expertise in multimodal planning, strategic and long-range planning, traffic impact analysis, and corridor plans. He performs traffic safety analysis, concept development and preliminary engineering, environmental permitting, land use planning, pedestrian and bicycle network planning and design, transit operations and service planning, stakeholder/public involvement, and grant management. Jamie has worked with a diverse client base including federal, state, and local governments, in urban, suburban, and rural environments.



- MA, City and Regional Planning, University of Pennsylvania
- BA, Urban Affairs, Goucher College (1998)

REGISTRATIONS/CERTIFICATIONS

• American Institute of Certified Planners (AICP)

Corbett Smith, CM

Master Planning

Corbett Smith has more than 18 years of experience as an Airport Planner with Mead & Hunt. He has played a key role in developing planning documents for airports ranging in size



from air carriers to smaller GA facilities. Corbett has a strong technical background with a broad range of experience in airport operations, including administration, finance, marketing, planning, construction, and sustainability issues. His focus for the past seven years has been on airport land use compatibility policies, regulations, and procedures.

With a strong background in environmental planning coupled with his aviation and private pilot experience, Corbett combines the aviation perspective with community and personal aspects of planning to create comprehensive studies.

Corbett performs site-specific studies to determine possible safety conflicts. He also prepares Airport Layout Plans (ALPs), master plans, and grant applications for FAA approval. Corbett is proficient in the use of the Emissions and Dispersion Modeling System (EDMS) designed to assess the air quality impacts of proposed airport development projects. He uses this expertise in the development of greenhouse gas emission technical reports for sustainability plans at airports nationwide. Corbett also has substantial expertise in the use of the FAA's new air quality and noise model, Aviation Environment Design Tool (AEDT).

EDUCATION

• BA, Environmental Planning, Sonoma State University-California (2006)

REGISTRATIONS/CERTIFICATIONS

- Certified Member (CM), American Association of Airport Executives (AAAE)
- Single Engine Land Private Pilot



Mead

Patricia Song

Master Planning

Patricia Song has six years of airport planning experience. She currently focuses on developing aviation demand forecasts and noise modeling utilizing the FAA AEDT. Patricia has helped develop training presentations about aviation demand forecasting to introduce forecasting techniques and strategies. She also has experience working on land use compatibility and using ArcGIS.

EDUCATION

- MS, Environmental Science and Management, University of California-Santa Barbara (2016)
- BS, Environmental Systems, University of California-San Diego (2014)

Greg Mead

Construction Administration

Greg Mead's involvement in development and airfield projects spans 30 years and has consisted of full-range civil engineering services, including grading, drainage, paving, utilities, specifications,



budget analysis, on-site design modifications, customer service, permitting, special inspection coordination, general project tracking, certified payroll review, cost estimates, construction documents, and construction management of vertical and horizontal projects. In addition, Greg has worked with architecture teams during development and construction of multiple building types, from an airfield electrical vault to terminal buildings and ARFF facilities.

EDUCATION

· Coursework, Business and Civil Engineering, Arizona State University (1994)

Mead Hunt

Ryan Meyer, GISP

Airports Geographic Information System

Ryan Meyer has more than 20 years of experience in technical Geographic Information System (GIS) consulting and project management. He has



created project exhibits and map series and custom Web applications with ArcGIS Server and ArcIMS, managed deployment and modification to customizable off-the-shelf web mapping applications, and created custom database applications relating to GIS information. His experience includes using SQL Server, Oracle, and DB2 to install, deploy, and manage enterprise GIS data. Ryan designs, develops, and manages .NET applications in VB.NET and C#. He performs needs assessments and logical and physical data modeling to define client data creation, migration, and updating standards. He has been responsible for executing multiple GIS projects for individual clients.

As a GIS Coordinator at Mead & Hunt, Ryan manages GIS projects, develops and coordinates GIS standards throughout the company, trains and mentors staff, assists with quality control, and supports GIS marketing development.

Ryan created an application to define the GIS data needed for meeting FAA AC 150/5300-18 and coordinates GIS deliverables for team members working with Mead & Hunt on projects using the FAA AGIS system. Projects include eALP, obstruction survey, and approach modifications. Ryan has completed FAA Integrated Distance Learning Environment (IDLE) training for AC 150/5300-18 and attended multiple technical seminars and conferences focusing on the FAA's move to AGIS.

EDUCATION

• BS, Cartography and Geographic Information Systems, University of Wisconsin-Madison (1998)

REGISTRATIONS/CERTIFICATIONS

- Certified GIS Professional (GISP), GIS Certification Institute
- Project Management Training, Project Management Institute (PMI)

Rafael Gonzalez, PE

Civil Design/Construction Administration

Rafael Gonzalez has more than 25 years of civil design engineering and construction experience in the United States, Canada, and Mexico. He has worked as design manager, senior engineer, and project manager for numerous projects in civilian and military aviation sectors.

As a senior civil engineer, Rafael has overseen and performed the design of the infrastructure supporting the aviation sector and military facilities, providing these projects with a comprehensive design of related infrastructure improvements. His management responsibilities on these projects have included supervising the production and quality assurance of engineering design reports, calculations, plans, bid documentation, specifications, and construction cost estimates.

EDUCATION

• BS, Civil Engineering, Universidad Iberoamericana-Laguna Campus (1996)

REGISTRATIONS/CERTIFICATIONS

- Licensed Professional Engineer California and Mexico
- · Autodesk Civil 3D Certified Associate



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Scott Swonke, PE

Civil Design

Scott Swonke is a Professional Engineer with 14 years of experience. He is a native Texan who moved back to San Antonio in 2021. He is a Senior Engineer specializing in airfield paving projects along with



water and sewer design. He has designed multiple taxiway, apron, and runway projects for both the FAA and military. Prior to his seven years of airfield design work, he served at a municipality where he prepared water, sewer, storm, and paving rehabilitation projects, alternating between designing a project and then overseeing its construction.

As a former Municipal Engineer and current Project Manager with Mead & Hunt, Scott has extensive experience with both large and small scale financial planning and cost estimating, frequently having taken projects from original planning conception through final completion. On federally funded aviation projects with Mead & Hunt, Scott has been the lead preparer on dozens of ACIPs over the last six years, with projects ranging from \$150,000 single-year projects up to \$200M multi-year, airfieldwide redevelopment programs. He has also been the primary grant-writer for multiple projects and frequently assists airports in federal grant reimbursement matters.

EDUCATION

• BS, Civil Engineering, Texas Tech University (2007)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - California, New Mexico, and Texas

Jacob Nunez, EIT

Civil Design/Construction Administration

Jacob Nuñez is an engineer for the aviation department at Mead & Hunt's Ontario office. He was trained in the Windsor office, assisting with design projects and assisting



other offices with day-to-day assignments. Since his relocation to the southern California region, he is focused on serving local clients. With over eight years of airfield work experience, Jacob has a diverse background in the areas of pavement design, drainage design, airfield electrical layout, on-site field engineering, and construction administration related tasks. Jacob is current with the latest and relevant versions of FAA ACs and incorporates these design requirements into project plans.

His in-office duties include civil engineering design, AutoCAD Civil 3D drafting, preparing plans and cost estimates, providing engineering comments, creating engineer design reports, preparing record drawings, and graphic exhibits. He also accompanies his aviation knowledge with water resource engineering, including hydrology and flow rate calculations.

His out-of-office duties primarily consist of field engineering as the resident project representative during construction. His efforts have been used to oversee construction activity, act as the primary point of contact between the contractor and engineering project manager to see that the project plans and specifications are being followed as obligated, track materials and costs, generate monthly pay invoices, log, and update daily construction progress, and respond to Requests for Information (RFIs) and submittals.

EDUCATION

- BS, Civil Engineering, University of North Carolina-Charlotte (2014)
- AS, General Science, Piedmont Community College (2010)

REGISTRATIONS/CERTIFICATIONS

• Engineer-in-Training – North Carolina

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Bill Ropposch, PE

Electrical Design

Bill Ropposch is an electrical engineer with more than 33 years of experience designing airport electrical systems for both civilian and military airfields. He is responsible for preliminary and final



designs as well as construction administration of airfield lighting systems, NAVAIDs, security systems, and other special systems associated with airfield improvement projects for both commercial service and general aviation airports.

Bill's experience includes designing power and lighting systems, airport security systems, communications systems, airport signage and marking, Instrument landing systems, approach lighting systems (ALS), and standby and emergency power systems, along with project management and construction administration. Bill also prepares plans and specifications, reports, and preliminary estimates for construction projects.

Bill's construction administration experience includes airfield lighting and signage projects, ILS installations, terminals, ARFF facilities, snow removal equipment (SRE) buildings, and airfield electrical vaults.

EDUCATION

• BS, Electrical Engineering, University of Detroit (1988)

REGISTRATIONS/CERTIFICATIONS

 Licensed Professional Engineer – California, Arizona, Georgia, Idaho, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, Texas, Washington, and Wisconsin

Chris Hunter, PE

Electrical Design

Chris Hunter is an electrical engineer with a broad range of experience working with clients to efficiently coordinate critical electrical projects. He is responsible for the electrical design of airfield and apron



lighting, controls, building systems, communication systems, and security systems. He is proficient in several types of design software and in working with various operating systems.

Chris has served as resident engineer for lighting replacements and vault upgrades at regional airports. He has also served as project engineer for installation or relocation of NAVAIDs and lighting systems in conjunction with runway safety area improvement projects.

In addition, Chris has performed light distribution/intensity modeling for apron lighting projects at GA airports such as Adams County Legion Field in Adams, Wisconsin.

Chris will provide electrical and NAVAID engineering support services during design and construction phases. He will facilitate electrical and NAVAID field investigations, coordinate with applicable FAA business lines, develop design solutions, and support electrical construction inspections.

EDUCATION

 BS, Electrical Engineering, University of Minnesota–Twin Cities (2008)

REGISTRATIONS/CERTIFICATIONS

 Licensed Professional Engineer – California, Colorado, Illinois, Iowa, Georgia, Maryland, Michigan, Minnesota, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Utah, Washington, West Virginia, and Wisconsin





Kari Nichols, PE

Drainage Improvements

Kari Nichols applies her understanding of the critical interplay between effective stormwater management and airfield safety to deliver infrastructure projects that balance the need for flow control,



water quality, and wildlife management. Her 24 years of knowledge and experience in water resources engineering consists of performing hydrologic and hydraulic computations and designing drainage infrastructure improvements.

Kari has prepared stormwater management plans and environmental compliance documentation for various airfield projects and is familiar with stormwater codes and regulations. She has worked on numerous airport projects within the Northwest, providing innovative water resources solutions complying with FAA, the Clean Water Act, Federal Emergency Management Agency (FEMA)-mapped floodplains, and state and local water resources regulations. Kari keeps current with water resources regulations and professional organizations to keep apprised of trends and drivers to deliver the most effective stormwater solutions.

EDUCATION

· BS, Civil and Environmental Engineering, University of Wisconsin-Madison (1998)

REGISTRATIONS/CERTIFICATIONS

· Licensed Professional Engineer - Alaska, Arizona, Colorado, Michigan, Oregon, Washington, and Wisconsin

Chris Miller, PE

Spaceport Planning and Design Lead

Chris Miller brings 51 years of experience in development and design of complex projects, including aerospace systems and defense installations. He is



accomplished in system engineering/integration, design engineering, and project management for a variety of projects, including the International Space Station programs, the Space Shuttle program, and Air Force space programs. He currently works as Program Manager with multiple small and medium launch providers, assisting with planning and execution of client programs at various spaceports.

EDUCATION

• BS, Mechanical Engineering, University of Florida (1972)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - Florida





Jason Abbott, PE

Spaceport Planning and Design

Jason Abbott has 23 years of industry experience and is BRPH's National Practice Leader for Civil Engineering and a Principal of the company. In this project for MASP, he will provide spaceport planning and design support, advising on best practices and ensuring all deliverables meet internal and client-specified requirements. He has extensive experience in spaceport planning, as well as planning for aviation, industrial, manufacturing,

federal, and commercial clients. Jason brings a far-reaching

perspective on quality control and master planning with

emphasis on processes, procedures, and execution.



EDUCATION

• BS, Civil Engineering, University of Central Florida (2000)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - Alaska, Colorado, Florida, Georgia, Illinois, Indiana, Maryland, Missouri, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, Washington, and West Virginia

Wally Schroeder, PE

Spaceport Planning and Design

Wallace (Wally) Schroeder is a registered civil/structural engineer with 40 years of space industry experience. His career spans over 21 years at NASA as



a civil servant and over 19 years in private industry, mostly in support of aerospace-related projects. Wally ultimately retired from NASA as Kennedy Space Center's Division Manager for Construction of Facilities (CoF) in the Engineering Directorate. He served NASA in this capacity during much of the Center's infrastructure modifications for the Artemis program. Over the last two years, Wally has served BRPH as a Quality Assurance Engineer and Senior Project Manager.

EDUCATION

• BS, Civil Engineering, University of Central Florida (1982)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer (Civil/Structural) – Florida





Derek Nolek, PE, LEED AP

Spaceport Planning and Design

Derek Nolek has 25 years of industry experience and is a skilled, technical leader within the aerospace and federal markets at BRPH. His history as a mechanism



design technical lead on various aerospace projects and mechanical design lead with past firms has given him a depth of experience with launch pads at many of the manned launch complexes around the United States—specifically, at Wallops Island, where he supported development of a Launch Vehicle and several of the launch facilities on the island. He is well-adept at taking aerospace vehicles from concept to fruition through design, build, and extensive testing. Derek joined BRPH in 2020 as Ground Support Equipment Leader and will provide GSE planning and design expertise to MASP, leveraging his past experience at other spaceports.

EDUCATION

- MS, Systems Engineering, Florida Institute of Technology (2018)
- BS, Mechanical Engineering, Purdue University (1999)

REGISTRATIONS/CERTIFICATIONS

- Licensed Professional Engineer Florida and Virginia
- Leadership in Energy and Environmental Design (LEED), Accredited Professional (AP)

Jimmy Woodard, PE, LEED AP BD+C

Spaceport Planning and Design

James (Jimmy) Woodard has 15 years of industry experience, giving him expertise in leading the design of fluid systems and ground support equipment design



in support of payload processing facilities, cleanrooms, manufacturing facilities, and other spaceport-related facilities. The nature of these fluid systems range from cryogenic and pneumatic to hypergolic propellants. His experience includes developing fabrication-level drawings and specifications for pneumatic panels and extends into integrating these complex systems in each facility by means of project planning, budgeting, scheduling, cost estimating, shop drawing review, field inspection, and construction management.

EDUCATION

- MS, Engineering/Industrial Management, Florida Institute of Technology (2015)
- BS, Mechanical Engineering, Florida Institute of Technology (2009)

REGISTRATIONS/CERTIFICATIONS

- Licensed Professional Engineer California, Alabama, Arkansas, Arizona, Florida, Illinois, Texas, Utah, Virginia, Washington, and Wisconsin
- Leadership in Energy and Environmental Design (LEED), Accredited Professional (AP) in Building Design and Construction (BD+C)





Brian Sayre, PE, SE

Spaceport Planning and Design

Brian Sayre is a Group Leader and Senior Structural Engineer with 21 years of experience in structural design, detailing, and project management of a broad spectrum of structures for retail, commercial, residential, industrial, and educational occupancy. He has design experience in all major structural engineering materials and with the design, analysis, and detailing of seismic retrofit schemes for existing buildings.



EDUCATION

- MS, Civil Engineering, University of California-Los Angeles (2001)
- BS, Civil Engineering, California State University–Fullerton (1999)

REGISTRATIONS/CERTIFICATIONS

- Licensed Professional Engineer California, Alabama, Colorado, Florida, Texas, and Washington
- Licensed Professional Structural Engineer California and Arizona

Susan Schiller, PE

Spaceport Planning and Design

Susan Schiller is a senior electrical engineer with more than 36 years of experience in power systems, motor control, transformation, lighting, and



semiconductor fabrication tool installation design. She provides senior technical review and onsite design/construction leadership to support ongoing work and customer needs.

EDUCATION

• BS, Electrical Engineering, Oregon State University (1987)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - California, Alabama, Alaska, Florida, Missouri, Montana, New Mexico, Oregon, Virginia, and Washington





Cheree Kiernan

Spaceport Licensing Services Lead

Cheree Kiernan is a Program Manager,
Solution Architect, and Senior Systems
Engineer with more than 25 years
of experience in spacecraft, launch
vehicle, and ground system development; mission
integration; launch operations; and range integration.
Cheree's experience includes a detailed understanding
of regulatory and safety requirements, operating plans
and processes, and documentation for spaceports and
users such as Spaceport America and Stratolaunch. She
was awarded Space Coast Woman Engineer of the Year
by the Society of Women Engineers in 2012 and the NASA
Space Flight Awareness Leadership Award in 2010.



- MS, Systems Engineering, Missouri University of Science and Technology (2005)
- BS, Aerospace Engineering, University of Central Florida (1998)

Chuck Wagner, PE

Spaceport Licensing Services

Chuck Wagner has over 30 years of engineering experience in the design of flight hardware and support equipment as well as in launch operations. Before joining ILS, Chuck served as the Vehicle and Payload Integration Manager for SpaceX, leading the development of spacecraft integration processes, ground support equipment, and the design and construction of two multi-million-dollar integration facilities.

EDUCATION

- MS, Systems Engineering, University of Houston (2005)
- BS, Mechanical Engineering, University of Wyoming (1988)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - Florida







Milton Keeter

Spaceport Licensing Services

Milton Keeter has more than 15 years of experience leading systems safety and FAA operator licensing efforts for Astra, ABL, and Orbital. He served as the primary interface to the FAA as the Safety Official both on- and off-console for each mission. Milton worked with responsible engineers and subject matter experts to develop and maintain license application materials and verification artifacts necessary to meet regulatory and range safety requirements, while managing corporate systems safety programs. He served as the CEO for Alaska Aerospace Corporation, managing the Pacific Space Complex in Kodiak, AK.



• BS, Aeronautics, Embry-Riddle Aeronautical University (2005)

Paul Soltis, PE, GE

Geotechnical and Materials Testing

Paul Soltis brings over 30 years of technical expertise to Twining. His experience includes geotechnical investigations and analyses relative to roads, bridges,



highways, and other California infrastructure projects. He focuses on interaction with the design team while developing construction documents to achieve the most appropriate foundation type and efficient site preparation techniques. Paul has extensive on-call contract management experience and the proven ability to maintain and manage multiple projects simultaneously. Paul is responsible for the technical oversight of the firm's geotechnical projects and management of the firm's geotechnical personnel. Paul's experience includes assuming the role of Geotechnical Engineer of Record during the design and construction phase of numerous high-profile projects throughout Southern California.

EDUCATION

- MS, Geotechnical Engineering, University of Colorado-Boulder (2000)
- BS, Civil Engineering, California Polytechnic State University (1993)

REGISTRATIONS/CERTIFICATIONS

- Licensed Professional Engineer California
- Licensed Geotechnical Engineer California



PSOMAS

Sammy Daghighi, PE

Construction Administration

Sammy Daghighi has over 30 years of professional expertise in civil engineering, geotechnical engineering, and construction management. His background includes extensive experience in construction quality assurance/quality control (QA/QC), deep foundation specialty engineering, and geotechnical engineering operations management. Over his two decades as a Civil Engineer, Sammy has worked on a broad range of project types, including infrastructure projects such as airports, municipal water systems, bridges, roadways, and ports, built to a wide range of specifications, including the Federal Highway Administration (FHWA), USACE, Caltrans, and the California Division of the State Architect (DSA).

EDUCATION

• BS, Civil Engineering, Azad University (1993)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Engineer - California

Brocton Miller, PLS

Land Surveying

Brocton Miller has 18 years of experience in land surveying as both a field surveyor and as an office project surveyor. His experience includes design surveys, construction, rail, aviation, transportation,



static and mobile scanning, topographic, boundaries, and cadastral surveys. He is responsible for organizing, managing and executing the QA/QC plan and coordination for a project. Supervises the technical work of other surveyors, CAD drafters, coordinates with engineers, subcontractors and agencies for final drawings, submittals, and specifications for approval.

EDUCATION

- Diploma, Land Surveying, Santiago Canyon College (2009)
- Coursework, General Education, Victor Valley College (2006)

REGISTRATIONS/CERTIFICATIONS

- Licensed Professional Land Surveyor California
- Certified Remote Pilot



Sean Smith, PLS

Construction Administration

Sean Smith has 27 years of professional experience in land surveying. His duties have included organizing, managing, and executing QA/QC plans, and coordinating a broad range of assignments for various



projects, requiring an extensive knowledge of land surveying and mapping, and supervising the technical work of other surveyors. As a Senior Project Manager, Sean oversees all land surveying activity. He is responsible for implementing and maintaining quality control to ensure product accuracy in all aspects of land surveying, including research and analysis, title reports, rights-of-way, easements, American Land Title Association (ALTA), topographic, photogrammetry, boundaries and mapping, and construction staking.

EDUCATION

- Coursework, Surveying Technology/Surveying, Rancho Santiago Community College (2003)
- Coursework, General Studies, San Bernardino Valley College (1995)

REGISTRATIONS/CERTIFICATIONS

• Licensed Professional Land Surveyor - California

Alec Seybold

Airspace Analysis

Alec Seybold currently manages business operations relating to the instrument flight procedure design, flight validation, and airport and airspace consulting services for Flight Tech Engineering. He



is a results-oriented professional with 20 years of technical and management experience in aviation operations ranging from airline to air navigation. Experience in global flight planning, operator impact forecasting, instrument procedure design (TERPS and PANS-OPS), flight validation, airspace analysis, and geospatial data management.

Alec's project experience with airspace, flight procedure development, and runway enhancement projects ranges from some of the most challenging mountain airports in the Rocky Mountain region to busy metroplex environments throughout the United States.

EDUCATION

BS, Aviation Management, Metropolitan State University (2005)

Teaming Partners

The Mead & Hunt team is organized according to specialties. Mead & Hunt will manage projects and lead the Engineering On-Call effort from our Ontario, CA office. We are also excited to partner with BRPH, ILS Corp, Flight Tech Engineering, Psomas, Twining, and Caskey Biological Consulting to bring you readily available and turnkey solutions to your engineering, planning, aerospace, and construction management needs. BRPH, with offices in Palmdale, will bring their extensive spaceport and aerospace specific experiences to the project team. We are also excited to partner with Flight Tech Engineering and ILS Corp. Flight Tech is a national leader on airspace and procedure design, while ILS Corp is experienced in spaceport licensing and certification. Long-time partners Psomas, Twining, and Caskey are also valuable members of our team, assisting with geotechnical, survey, and biological consulting services. In short, your project team members are close by and familiar with the stakeholders and issues affecting MASP. This is a team that knows how to work together and understands the unique challenges associated with your air and space port.

BRPH Founded in 1964 to support the Apollo program, BRPH has grown as a trusted partner alongside the space industry. BRPH helps plan, design, and construct some of the industry's most well-known spaceport facilities. BRPH has over 320 employees across 10 offices. Their Palmdale, CA office will serve as the base office to support MASP in this On-call Engineering Services contract.

With integrated mission solutions, architecture, engineering, planning, and construction services, BRPH delivers turnkey solutions to commercial space companies and federal agencies. BRPH has master planned over 3,000,000 square feet of aerospace/aviation facilities, including for Cape Canaveral Space Force Station, Pacific Spaceport Complex - Alaska, The Boeing Company, Embraer Aircraft, Gulfstream Aerospace, JetBlue, Bombardier, L3 Harris Corporation, NASA, and many others. BRPH provides space planning, economic analyses, value engineering, cost estimating, building and site evaluation, and planning services to support spaceport development throughout the US. BRPH currently holds an engineering support services Indefinite Delivery, Indefinite Quantity (IDIQ) contract with Space Florida, through which they have assisted in the development of Cape Canaveral Spaceport for over a decade.

In addition to master planning, BRPH spaceport expertise spans the design and construction of test facilities, payload processing facilities, propellant storage facilities, horizontal launch vehicle assembly & storage facilities, and explosive site plans.



Integrated Launch Solutions, Inc. is a privatelyowned Woman Owned Small Business (WOSB) that provides systems engineering, technical

integration, launch licensing, and range safety support for commercial launch service providers, spacecraft companies, and spaceports. ILS's team member experience spans more than one dozen major launch vehicle programs (e.g., Falcon 1, Falcon 9, Delta II, Delta IV, Atlas V, Sea Launch, Pegasus, Stratolaunch, Virgin Orbit) and 10 federal launch ranges and commercial spaceports [e.g., Kennedy Space Center, Cape Canaveral Space Force Station, Vandenberg Space Force Base, Wallops Flight Facility, Pacific Space Complex - Alaska, Mojave Air and Space Port, Spaceport America]. As the Spaceport and Range Integrator for the Defense Advanced Research Projects Agency (DARPA) Launch Challenge in 2019/20, the ILS team had the opportunity to work with emerging launch service providers such as Astra, Vector Space, and Virgin Orbit and spaceports such as MASP to learn firsthand about launch and spaceport licensing and the new designs, technologies, and concepts of operation being proposed to support "new space" initiatives.



For over 125 years, Twining has

in providing geotechnical, materials testing, and construction inspection services. With seven state-of-the-art laboratories and over 150 inspectors, the firm has the in-house resources to meet the changing needs of complex construction projects, from multi-building hospital campuses to interstate highways. Twining employs some of the industry's most well-known construction materials experts who perform research and consult with regulatory agencies to shape the future of construction standard practices. These experts have a true understanding of construction materials and their application in the field. Their work with regulatory agencies leverages this understanding to improve existing regulations and author new guidelines.

Twining is the leading provider of geotechnical investigations, soils, materials testing, and inspection services on airport projects throughout California. The firm is proud of its legacy of successful project delivery at San Diego International Airport (SAN), Los Angeles International Airport (LAX), Ontario International Airport (ONT), John Wayne Airport (SNA), Santa Barbara Municipal Airport (SBA) and Sacramento International Airport (SMF) among others. Twining brings over 100 years of excellence to each project undertaken, and the firm's proven reliability means that you can count on Twining to deliver continuity and quality of service in all circumstances.



Established in Southern California in 1946 as a family-owned surveying firm, Psomas has grown to offer full-service geospatial and civil engineering consulting services and currently

employs over 750 professionals in 15 offices throughout California, Arizona, Washington, and Utah. Psomas maintains a traditional organization structure with a President, Vice Presidents, Regional Managers, Managers, and staff. The firm has over 194 surveying, GIS, and photogrammetric staff firmwide.

Psomas is experienced at coordinating between multiple agencies and utilities. Psomas has received numerous repeat contracts for consecutive terms due to the team's ability to effectively oversee multiple assignments simultaneously and manage them to their successful completion.

Named the largest surveying company in California by Engineering News Record, Psomas has both the financial and local technical resources required to accomplish the work efficiently, effectively, and responsibly.



Flight Tech Engineering is a professional flight operations engineering firm with **FLIGHT** TECH considerable experience in the field of instrument flight procedure design,

airspace changes, airport construction project management, airline coordination, and aeronautical data management. Through its partnership with the FAA, FTE delivers innovative and collaborative solutions to airport operators and their stakeholders. While instrument procedure design (FAA TERPS) is FTE's core competency, this proficiency combined with its airline operations experience allows the firm to provide accurate feasibility and impact assessments for airport and infrastructurerelated projects. With client engagements ranging from large international airport hubs to small regional airports, the firm's commitment is delivering solutions that meet the client's goals and objectives.

FTE brings together a team of talented and trusted Aircraft Performance Engineers and Instrument Flight Procedure Designers who have resolved complex airport and aircraft logistics and challenges. As a FAA authorized third-party procedure developer, FTE can formulate flight procedure designs from concept to implementation. The firm is also one of the few Instrument Flight Procedures (IFP) providers that handles conventional (ground-based) procedure design. FTE utilizes the same software as the FAA, United States Air Force (USAF), and National Geospatial-Intelligence Agency (NGA), which allows the firm to accurately model airspace changes and implement new flight procedures.

FTE maintains an active relationship with the FAA Airports Regional Flight Procedure Teams, FAA Flight Procedure Standards, FAA Flight Technologies and Procedure Division, and the Society of Aircraft Performance and Operations Engineers (SAPOE). These communication channels ensure the latest technology and industry standards are applied to every project and provide improved response time.



Caskey Biological Consulting is a certified woman-owned, small business enterprise located in

Carlsbad, CA. Caskey staff has conducted studies and surveys for aviation management, pipeline construction, oil and gas exploration, wind energy development, electrical utility line construction, and more. As a business, Caskey is committed to working with a wide range of companies, public agencies, and individuals involved in the responsible planning and management of natural resources. As it relates to the current project, Caskey staff has been assisting aviation development and wildlife management since 2016. In that time, Caskey has provided a variety of services including wildlife hazard assessments per FAA standards set in 14 Code of Federal Regulation (CFR) Part 139.337, biological resource assessments, protocol-level listed species surveys, and jurisdictional delineations for numerous airports in Riverside County and Kern County.









Primary Office of Performance

Merritt Island, FL Ontario, CA Palmdale, CA **Denver, CO**

Team Role

- Program Leadership
- Landside and Airside **Engineering Services**
- Construction Management
- Hangar Development
- Pre-Engineering for Airside and Landside
- Planning Services
- Master Planning Services
- FAA, AIP, and ACIP Coordination
- Cal Aero Coordination
- Part 77 and Obstruction Mitigation
- ALUCP Coordination
- Grant Assurances
- Project Documentation
- National Environmental Policy Act (NEPA) and CEQA

- Spaceport Lead
- Specialized Aerospace Engineering Services
- Assist with Airside and Landside Engineering **Exhibits**
- Rocket Test Site Layout and Design
- Guidance with NFPA 30, 55, 407, and Other Regulatory Requirements
- Technical Assistance with Mishap Planning, Reporting, Response, and Investigation

- Spaceport Licensure Lead
- FAA Office of Commercial Space Transportation (FAA-AST) Coordination
- Site Operator Licensing (14 CFR Part 420)
- User Licensing (14 CFR Part 450; Part 101 Waivers)
- Spaceport Operations
- Spaceport Ground Safety

- Flight Procedures Airspace Lead
- FAA Air Traffic Organization (FAA-ATO) Coordination
- Terminal Radar Approach Control Facilities (TRACON) and Center Control Liaison















Primary Office of Performance

Los Angeles, CA Long Beach, CA Carlsbad, CA

Team Role

 Topographic Survey Geotechnical Lead Biological Resources







SECTION 3

PROJECT APPROACH AND UNDERSTANDING



The Mead & Hunt team has years of experience working with airports and spaceports coast to coast. As such we are aware of the issues and concerns facing public-use airports as well as the unique needs of spaceport facilities like MASP. Mead & Hunt, along with our industry-leading aviation and aerospace teaming partners of BRPH, ILS Corp, and FTE, will provide you with realistic, timely, and innovative solutions.

This diverse team has been assembled to realize MASP's planning and engineering needs for the duration of the contract period. The Mead & Hunt team knows the industries we serve. We practice nationwide, serving spaceport and airport clients. This is our specialty. In addition to our work at MASP, Mead & Hunt has completed project work at various spaceports including Midland Air and Spaceport and Houston Spaceport. From our work history and project experience at MASP, we enjoy a high level of familiarity and understanding of your past success, current endeavors, and future aspirations. We are a "one-stop-shop" for your airport and spaceport planning, engineering, and technical needs.

As your past provider of planning and engineering services, we have valuable familiarity and understanding of your facilities and community, including your desires to rehabilitate the outer 25 feet of Runway 12/30, expansion of Runway 8/26, redesignate various properties from aeronautical to non-aeronautical (Section 163) for revenue generating non-aeronautical use, leverage land resources for economic development, and your desire to continue your strong track record of financial resiliency. Public outreach with stakeholders, inside and outside the fence, will be an important consideration by your project team. High-quality project management is an essential component for success. Our team is devoted to delivering high-quality products on schedule and within budget.

Devoting time, effort, and attention to the MASP, the Mojave and Kern County community, the FAA Western Pacific Region, and other stakeholders is key to the ultimate success of this On-Call Services Agreement. Our approach is intended to be dynamic, building on previous experience, and tailored to MASP current goals and needs. Mead & Hunt's baseline process for providing exceptional planning and engineering services involves planning, delivery, review, and improvement. The Mead & Hunt team works with the latest and proven technologies, comprehensive training, and deeply-vetted delivery processes that allow for creative and critical thinking to focus on solutions for our clients and their projects. With our nationwide practice of 250 aviation professionals and employees, along with our teaming partners, the MASP team will have a strong pool of resources from which to draw collective knowledge and experience.

Detailed information regarding our spaceport teaming partners, along with their qualifications and how they will provide strong value regarding spaceport engineering, licensure, and aerospace solutions, are included starting on page 28 of this proposal.

Spaceports and Commercial Space Infrastructure

Mead & Hunt professionals support the aerospace industry by assisting spaceport operators develop and improve airside and landside facilities. Our engineering team have assisted with pavement design and rehabilitation, and our planning staff has prepared environmental compliance documents pursuant to NEPA and FAA's implementing guidance, as well as applicable state regulations. We have worked to prevent encroachment near spaceport facilities by reviewing proposed projects for their potential to affect current and future facility operations. Mead & Hunt is also actively engaged in master planning and strategic planning services for airports located in aerospace industry clusters in the northwest and southwest.

Aviation and Aerospace Industry Tracking and Engagement

Mead & Hunt, along with teaming partner BRPH, are active members of the Commercial Space Flight Federation and the Global Spaceport Alliance. We are regular participants in industry organizations and committees working hard to advance the spaceport and commercial space economy. We work diligently to stay ahead of and on leading edge or advancements in technology, regulation, and progress of the spaceports and commercial space. The project team also has experience working with important trade associations such as California Special Districts Association, AAAE, AOPA, National Business Aviation Association, National Air Transportation Association, and other organizations for which MASP may be a member. Our goal will be to actively work with and facilitate strong working relationships with MASP partners to assure quality projects and services.

Aviation Engineering

For more than 120 years, our full-service engineering team has worked to support and transform our communities and airports. From water, buildings, and transportation, to energy, aviation, and municipal infrastructure, we design engineering solutions built to last.

A strong commitment to function, efficiency, and sustainability defines our aviation work. We strive to be on the forefront of technological advances so we can overcome your toughest project challenges. Ultimately, our goal is to provide MASP airfield and spaceport engineering solutions that keep MASP at the cutting edge of aviation and aerospace and make MASP an attractive location for public and private investment. Our aviation civil engineering practice includes planning, design, and construction services. Our team of aviation engineering professionals will work diligently with MASP through every phase of project life cycles, looking for innovative ways to meet your current needs and future aspirations.

Airport Land Use Compatibility Planning

The breadth and depth of Mead & Hunt's ALUCP experience in California and throughout the US is unsurpassed. Our land use planning experience encompasses more than half of the airports in California. Our clients include federal agencies,



state governments, airports, counties, cities, and developers seeking to design land use projects well-suited to the airport environment. We have done extensive research on the full range of airport land use compatibility issues, drafted federal and state compatibility guidelines, written local compatibility plans, policies, and zoning ordinances, and assisted with compatibility evaluation of individual development proposals. We have prepared past Kern County ALUCPs, which include MASP (then known as Mojave Airport).

Environmental Planning and Compliance

An important part of our design process, Mead & Hunt's environmental planners and scientists work alongside our designers and engineers from project conception through construction to avoid and reduce potential impacts to



sensitive resources in accordance with NEPA, CEQA, and local regulatory frameworks. When impacts to sensitive resources cannot be avoided, we work to develop reasonable and feasible mitigation strategies that

achieve regulatory compliance while remaining appropriate for an airport environment and the overarching goal of aviation safety. Mead & Hunt's environmental planners routinely:

- Prepare NEPA compliance documents in accordance with FAA regulations and guidance, such as Categorical Exclusions (CATEXs), Environmental Assessments (EAs), and Environmental Impact Statements (EISs).
- Prepare CEQA compliance documents, such as Notices of Exemption (NOEs) or Initial Studies/ Negative Declarations (IS/NDs), and manage or contribute to Environmental Impact Reports (EIRs).

Service Delivery and Project Management

Effective project management will be integral to successfully delivering projects according to schedule and budget. Due to our current and past experience working at MASP, we are familiar and knowledgeable of MASP and the industry and community it serves. By assigning an experienced and successful project manager with extensive knowledge of MASP, we prevent schedule delays due to unforeseen challenges and miscommunication. Our plan for success on your projects begins with the organization of our team. Our team is well informed and closely tracks FAA regulations, guidelines, and processes, as well as Caltrans guidance and processes. Our project teams hold weekly meetings where schedules and resources are reviewed, along with any concerns. If necessary, plans are made to add resources and extra effort to meet milestone dates and keep the project on schedule. Engineering and technical project management happens in four distinct phases:

- 1. **Preliminary Design:** The Mead & Hunt team kicks off the project in this phase to do research, learn more about the Airport and its stakeholders, and sets the tone for the project. The basis of design is laid out in this phase, with key information such as geotechnical results, existing conditions survey, record drawing review, and existing utility information. This phase fuels the remainder of the work, connects key team members, and promotes knowledge sharing for a healthy project start. The Mead & Hunt team is well practiced in getting these projects off to a good start by understanding the scope of work and goals of the Airport.
- 2. **Detailed Design:** In the detailed design of airfields, Mead & Hunt follows guidelines issued by the FAA in their ACs. Mead & Hunt relies upon navigation of the FAA website, as well as internal libraries of supporting documentation to take the research from the Preliminary Design to the finished product that meets FAA requirements for AIP funded projects. The Detailed Design phase is also an ongoing collaboration with MASP and daily users of the Airport to see that project goals are being upheld and impacts to operations understood as the details progress.
- 3. **Bidding and Negotiations:** Mead & Hunt has a regional understanding of prices from various projects on and off airports. Our team will provide thorough reviews of bids received and appropriate recommendations on how to proceed. Mead & Hunt is aware of the steps needed to follow through with the FAA Los Angeles ADO for grant application updates and submissions, as well as keeping all parties informed throughout this phase.

4. **Construction Administration:** The implementation of a high-quality construction inspection program is imperative to providing a superior product that meets the requirements on the project plans and specifications, as well as FAA requirements. FAA AC 150/5370-12: Quality Management for Federally Funded Construction Projects, provides guidance, responsibilities, and examples of appropriate report, record, and inspection practices, and has been used as a baseline to create the Mead & Hunt construction inspection standard process. Mead & Hunt recognizes the importance of closing out grants at the completion of a project. We begin our closeout report during the design phase to reduce the time required to close the grant at the end of the project. While in construction, our team processes Certified Payroll Reporting (CPR) as part of our construction administration services. This documentation adheres to the labor requirements set forth by the FAA. These approaches reduce the timeframe for full reimbursement by the FAA. We have also been successful in working with the FAA to submit draft closeout reports to reduce the percent held by the FAA improving cash flow for our clients.

We have assembled a multi-disciplinary team of experts, along with our teaming partners, to provide MASP "turnkey" engineering and planning service. Our team organization and



experience will enable us to work closely with District staff to offer an ongoing exchange of ideas and promote efficient flow of information. Our goal is to provide you support as an extension to your staff. Many of our core teaming partners

have worked together in the past on airport and spaceport work. We understand that keeping all parties well informed of project activities and progress is both important to the District and critical to project success.

Program Approach

The Mead & Hunt team will call upon past provided services to support the upcoming work. Through supporting MASP's annual CIP submissions and understanding funding sources, environmental, and stormwater management information of the airfield property and spaceport facilities, as well as FAA

points of contact that have been involved in decisions made, the knowledge Mead & Hunt has gained will continue to be an extension to this team and exercised for the upcoming project work.

Scheduling

During scoping, Chuck McCormick and team leadership will meet with MASP staff to gain a thorough understanding of project expectations and schedule. The schedule will provide sufficient review time for the District, the FAA, and internal QA/ QC procedures before it is clearly communicated to the team and will be tracked on a regular interval. Roadblocks, potential delays, and deviations in the schedule will be discussed as soon as they arise, and a workable solution will be developed and communicated.

Grant Cycles

MASP needs and FAA grant cycles will define the schedules for each task on your ACIP. We will regularly track your AIP program to identify projects, provide cost estimates, and prepare FAA applications. We have been working with the FAA for decades, and we meet with them regularly to understand their needs. We are involved in many professional organizations and attend local and national conferences to stay ahead of developments in grant funding and design standards. We will incorporate the MASP review and public bidding schedules into all program and project schedules and make sure we meet the funding deadlines, as necessary.

Unexpected Challenges and Remedies

We all know that change is inevitable, and it can originate due to many circumstances. However, Mead & Hunt understands we only have control over how we respond, communicate, and manage challenges and change. When challenges arise, Chuck and MASP leadership will discuss changes, noting any initial challenges and risks, project schedule and budget implications, and any potential effects on the scope of work. Chuck will memorialize the discussion topics in an email noting action items to further define the change and confirm impacts to scope, schedule, and budget. Chuck will maintain a scope log throughout the duration of the project that will be reviewed at all stakeholder meetings. The log will be used to track and forecast any out-of-scope items that should be discussed as a group regularly.

When challenges occur and work is stopped, time is of the essence. Having a well-defined approach for managing change allows the project team and MASP to work collaboratively to identify the scope of changed work, evaluate impacts, recommend a course of action, and implement the agreed to changes. Beginning after the initial discussions with the District regarding potential project changes described above, Chuck will communicate with the project team seeking input from the support staff and teaming partners about their observed



challenges and risks (safety, quality, schedule, and budget) and how they see the changes affect the project scope of work. With this input, Chuck will confirm the scope of the changes, develop a preliminary construction cost

(increases or decreases in value) and corresponding impacts to project schedule, estimate engineering costs, and identify the time and resources available to incorporate the changes. Using project control tools available to our team, Chuck will be able to derive estimated costs and schedule to complete the entire project based on a new scope of work. Chuck will identify opportunities to mitigate cost and schedule impacts. Once the necessary information has been gathered, Chuck will communicate with MASP to present our findings and to discuss opportunities to mitigate the safety, quality, schedule, and budget impacts. Upon consensus on the preferred direction to move forward and receipt of written authorization and direction from MASP, Mead & Hunt will resume work on the affected tasks.

Communication

Communication is a key component to facilitating your airport program, projects, and daily tasks. Team communication will be facilitated using several direct processes. Project Manager, Chuck McCormick, will communicate with discipline leads often and, at a minimum, at regularly scheduled project progress meetings. The assigned leads for the various components of this contract will:

- Communicate with technical professionals through telephone calls, meetings, and emails.
- Keep Chuck informed about scope, cost, and schedule on a weekly basis.
- Communicate, coordinate, and collaborate with their teams using Microsoft Teams communication software.

Close coordination and communication are required to complete project deliverables and to prevent conflicts among areas of work. Microsoft Teams enables us to coordinate and monitor all team members' efforts without duplication. All meeting minutes and action items are tabulated in one location and assigned to the correct lead person to be addressed. As we initiate projects in your airport program, we will institute bi-weekly schedule updates that will facilitate communication with MASP staff to establish project milestones.

Chuck will oversee all work performed by the project team. As in the past contract, Chuck will coordinate and lead the monthly meeting with MASP and the FAA Los Angeles ADO to review and go over ongoing and future projects at the airport.

Engineering Lead, Rafael Gonzalez, Planning Lead, Kevin Smith, and Spaceport Lead, Chris Miller, will assist Chuck in managing and coordinating the work. We have developed a solid working relationship with MASP staff and have been called upon as trusted advisors to help find solutions and resolve issues. We look forward to continuing our relationships working with the MASP team to find solutions that make your jobs easier.

Projects of High Importance

The RFP provided scope of work will require knowledge, experience, and expertise in the following:

- Airport and Spaceport Planning and Engineering Services
- Runway and Taxiway Rehabilitation
- Electrical Design
- Pavement Management and Design
- Spaceport and Launch and Reentry License and Certification
- FAA AIP Requirements
- FAA Grant Applications
- Environmental Services
- Adherence to NEPA Requirements
- Construction Administration

The key personnel assigned to support MASP for the term duration have combined experience in all of the items above, in addition to familiarity with MASP projects as part of our current Airport Engineering On-Call Agreement. You have exciting and pressing needs for services and support for your spaceport, aerospace, and GA mission needs, including:

Specialized Spaceport Services

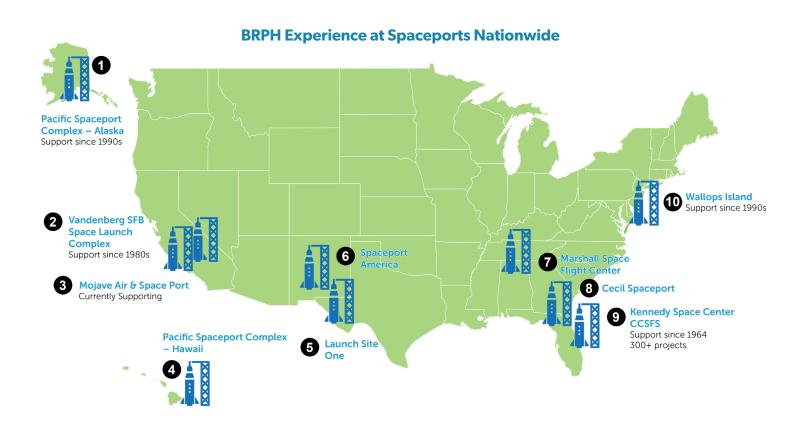
BRPH has provided space planning, economic analyses, value engineering, cost estimating, building and site evaluation, and planning services to support spaceport development throughout the US. The experience map below illustrates their spaceport experience throughout the country.

BRPH has worked on every launch site in the continental United States and is experienced in establishing rocket test site facility layouts that conform to multiple, sometimes overlapping, criteria. From Quantity Distances established by DOD DESR6055.09, NFPA site storage and use facility setbacks from NFPA 30, 55, and 407, and even propane Flare Stack setbacks and sizing established by API STD 521 – BRPH consistently leverages these guidances to right-size site plans that comply with the applicable standards. The BRPH electrical engineering team will work closely with MASP to ensure appropriate site hazard ratings per National Electric Code (NEC) and National Fire Protection Association (NFPA), in order to specify the right equipment without being overly conservative.

BRPH currently holds a five-year IDIQ-type contract with the MASP for planning, design, construction administration, and engineering services to support the commercial space industry and horizontal launch operations at Rutan Field. Two Task Orders, a PPF Study, and a Master Planning Scope Study, have been executed. BRPH continues to provide support as further spaceport-related tasks are identified.

Hypersonics and High-Speed Vehicle Support

A need to understand hypersonic vehicles and high-speed flight corridors is developing as entities such as US Defense Advanced Research Projects Agency (DARPA), USAF, the US Army, and the US Navy continue to fund commercial hypersonic solutions. ILS has participated in activities such as the High Speed Aerospace Transportation Workshop in Midland, TX and understands the desire for vehicles such as Stratolaunch's Talon-A to ultimately land at MASP which is going to require a significant amount of coordination with FAA-SOO, FAA-ATO, FAA-AST, and stakeholders, such as Edwards Air Force Base.



ILS's subject matter expert (SME) resource pool includes a consultant with experience as both a military and commercial pilot, a directly relevant understanding of the airspace surrounding MASP, and the evolving coordination of high-speed flight corridors between spaceports and/or launch locations. This SME has worked directly with Pam Underwood and the FAA Spaceports organization to initiate preliminary discussions regarding high speed corridors to support flight operations for vehicles including the Talon-A.

ILS also currently works with the Starfighters Program at Kennedy Space Center, as they evolve operations from high-speed captive carry to horizontal launch.

Part 420/Part 450 Launch Licensing and Part 101 Waivers

Establishing and maintaining compliance with 14 Title CFR Parts 400-460 is often underestimated by the commercial space transportation industry. It requires applicants to develop, implement, and maintain well-defined processes and procedures to identify, evaluate, and control flight and ground hazards as well as manage the integration and safety of neighboring operations, provide physical security for the surveillance and control of hazard areas, enable emergency services, and participate in mishap investigations.

ILS has prepared directly relevant plans, processes, and procedures for Part 420, Part 450, and Part 101 Waiver applications. These include but are not limited to the following:

- Requirements Management
- Configuration Management
- Records Management
- Systems Safety
- Hazard Analysis (Functional, Flight, Ground)
- Explosive Siting
- Telemetry and Tracking
- Spectrum Management
- Mishap and Emergency Response

Over the past two years, ILS has developed document templates for these items that are mapped to the CFR requirements, providing a clear mapping and traceability that assists application reviewers. These templates have been complimented by FAA-AST, valuing the organization and ease of finding things.

ILS' application development and modification experience includes work with two licensed spaceports, one new spaceport applicant, and eight service providers (e.g., Stratolaunch, Phantom Space Corporation, Vaya Space, and Sierra Space). ILS recently developed explosive siting artifacts and plan updates for Alaska Aerospace Corporation (AAC) and a new applicant to be reviewed and approved by the FAA. This will be key as MASP adds new tenants and users and changes or upgrades the site layout and infrastructure elements such as test stands and the fuel storage location.

ILS does not perform Flight Safety Analysis or Environmental Review, however, does work with consultants who may be easily contracted to provide those services if needed.

Spaceport Integration and Operations

A critical element of MASP's operations as a spaceport includes the protection of the public, the MASP workforce, tenants and users, and critical infrastructure and resources. This requires the spaceport to understand how each user intends to operate on site, the hazards associated with their hardware and ground support systems, and the mitigations put in place to minimize the risk. To accomplish this, ILS has worked with commercial spaceport operators such as the New Mexico Spaceport Authority (NMSA) and AAC to support the development and/or revision of documentation to accommodate new spaceport users and licensing activities at Pacific Spaceport Complex - Alaska and Spaceport America. Examples of these documents include:

- Spaceport Concept of Operations
- Spaceport Users' Guide
- Spaceport Safety Requirements Document

In developing these documents, ILS also works with spaceport teams to define and/or refine integrated subprocesses and procedures such as scheduling and spectrum management, as these items are also needed for spaceport user licensing and the growth of operations. ILS engineers also have the capability to review user designs and operating procedures for safety requirement compliance and risk. For example, ILS recently reviewed propulsion cart designs and drawings to identify potential failure modes and hazards for operations in the payload processing facility. ILS subsequently worked with the team to modify the design to eliminate a failure mode, define test requirements, and define operational constraints for loading procedures to protect personnel and resources.

Spaceport CEO Experience

ILS's Director of Commercial Programs, Milton Keeter, recently served as the CEO of AAC, gaining a first hand understanding of the challenges and opportunities associated with managing spaceport customer programs, key stakeholders, and the surrounding community members. He also served as the Systems Safety and Licensing Lead for companies such as Astra and ABL, providing the unique perspective of a spaceport user.

Aeronautical and Non-Aeronautical Land Use **Designations**

Mead & Hunt has extensive qualifications and experience assisting airports with Section 163 applications. We are ready to help MASP analyze, review, and engage with FAA to achieve your aeronautical and non-aeronautical land designation goals.



With significant MASP on-airport land resources on hand for both aviation and non-aviation land development, opportunities to leverage these land assets will always be at the forefront of all decision making

and recommendations. We can assist MASP achieve a road map for land leasing opportunities, making aeronautical and nonaeronautical land development strategies and plans relevant and attractive to private land developers and potential land lessors, enticing them to engage and choose MASP properties and research and development (R&D) facilities, along with the accompanying infrastructure. Mead & Hunt will address FAA areas of interest related to protecting federal investment, maintaining sufficient property for aeronautical development, and land use compatibility.

Runway and Taxiway Design and Rehabilitation

- Rehabilitation of the Outer Section of Runway 12/30: This project would include design, engineering, and construction supervision.
- Runway 8/26 Expansion: This project would include land acquisition, environmental, design, and construction supervision.

■ Taxiway A Rehabilitation: This project would take place at the Taxiway A and Taxiway F intersection, where pavement failures have occurred due to towing operations of heavy aircraft, such as the Airbus A380. This endeavor would include design, engineering, environmental, and construction supervision.

North and South Perimeter Road Projects

- North Perimeter Road Pavement Project: This endeavor will include environmental studies, utility studies, design, engineering, and construction supervision. This perimeter road will allow efficient access to spaceport tenants to their rocket test areas.
- South Perimeter Road Pavement Project: This endeavor will include environmental studies, utility studies, design, engineering, and construction supervision. This project will pave the south perimeter road, which was rehabilitated in 2019. This perimeter road also allows access by spaceport tenants to their rocket test areas on the east side of the airport.

Aviation Facility Enhancements

We are ready to assist MASP in your rehabilitation of the GA apron, ARFF station relocation assessment, and utility facility planning, design, and rehabilitation. Unique among aviation consultants, Mead & Hunt offers resident engineering staff with design experience to enhance the quality control of your project. This also enables immediate design changes in the field to fit conditions while staying in conformance with FAA design criteria and your airport's needs.

Fuel Farm Relocation Upgrade and Hydrogen Fueling

We have assisted various clients with fuel farm planning, design, and engineering. Your project team includes past FBO managers ready to assist and analyze products and services as well as fuel farm utility and efficiency design. Mead & Hunt actively participate on regional and national forum studying and preparing for alternative fuels including unleaded Avgas and hydrogen fuel options. Mead & Hunt tracts closely and participates in the FAA EAGLE Initiative as well as FAA efforts through the US Aviation Climate Action Plan to decrease emissions through electrification, and potentially hydrogen, as solutions for short-haul and long-haul transportation. MASP is uniquely situated to provide R&D space and incentivize investment in this important technology. Mead & Hunt is prepared to assist MASP in these efforts.

Hangar Development and Construction

We understand MASP has short- and long-term aircraft hangar needs, including medium and large corporate hangar developments as will as hangar reversion clauses coming due. Mead & Hunt can help MASP work through these important issues and development plans. The Mead & Hunt team has



extensive experience planning, permitting, designing, and building aircraft hangars. In addition, your project team has direct hands-on experience and expertise in hangar maintenance, management, and

administration of these facilities learned while directly employed by public use airports. Kevin Smith, AAE, and Hardy Bullock, AAE, will be available to assist with their extensive knowledge of ground leases, improved ground leases, hangar reversion, waitlist and hangar demand management, rates and fees, minimum standards, rules, and regulations pertaining to hangars constructed on public use airports as well as FAA and State of California requirements and regulations.

Master Planning and Airport Layout Plan Updates

We are uniquely positioned to assist MASP and the local and regional community on your next master plan effort as well as current and future ALP updates. We have completed over 100 master plans and would be prepared to assist MASP with that important project. Our thorough team knowledge of the aerospace industry, key stakeholders within Kern County, the City of Mojave, and the surrounding region make us uniquely qualified to provide these important services.

Airfield Pavement Management Systems

Maintenance and preservation of MASP airfield pavements is essential to the operational safety of your Airport and Spaceport. A strong and well defined Airport Pavement Management System (APMS) is the engine that drives the right treatment for the right pavement at the right time. The FAA uses the National Priority Ranking (NPR) system to rank projects in order to secure funding. For pavement rehabilitation and reconstruction projects, the NPR is related to the Pavement Condition Rating (PCR), which the FAA requires to be included in the ACIP data sheets and grant applications. Mead & Hunt routinely prepares and updates APMS reports after rehabilitation and reconstruction projects or at three year intervals to consistently meet this milestone. Our APMS experience is substantial, ranging from individual airports to statewide plans, such as the one Mead & Hunt completed in 2012 with APTech for the Caltrans Division of Aeronautics.

Value-Added Services

Airport Manager Resource Team (AMRT)

Mead & Hunt understands that Airport staff resources can be challenged by competing interests and budget constraints. Your ability to provide high-quality and timely information to your community, elected and appointed officials, and coworkers can be affected by limited resources. The Mead & Hunt team is ready and willing to assist in all your airport management and administration tasks.

Within our Mead & Hunt aviation group is an extensive list of former airport directors, airport management staff, state



aviation officials, and FAA employees. These planners, pilots, engineers, environmental specialists, among other disciplines, are eager to assist and supplement your staff resources to quickly provide information

and complete projects and tasks quickly and efficiently. Our combined team will supplement your staff and provide you with an immediate on-call resource, as needed.

Included is a list of expertise and tasks we provide to a variety of airports. This is a cost-effective way for your airport staff to meet urgent and critical day-to-day and short horizon tasks and deadlines that may come your way.

For more information regarding this Mead & Hunt service, please contact AMRT Team Leader, Kevin Smith, via the following methods:



Kevin Smith Email: kevin.smith@meadhunt.com Phone: 608-443-0384

Airport Manager Support Services:

- Monetization of Parking (Vehicle and Aircraft)
- FBO Operations and Services
- Grant Management and Administration
- Project Management
- Rates Fees and Charges
- Grant Assurance Assistance and "Through the Fence" Reviews
- FAA ADO Assistance
- Airspace and Flight Procedure Evaluations
- Sustainability and Carbon Reduction
- Airport Minimum Standards
- Part 13 and Part 16 complaints
- Leases and Commercial Operating Permits
- Hangar Development and Pro Formas
- Hangar Management, Leasing, and Revenue Strategies
- Emerging Technologies
- Air Shows and Public Events Planning
- Advanced Air Mobility (AAM)
- Runway Safety Area Determinations
- FAA Design Standards
- Tenant Relations
- Community Outreach and Engagement Programs and Strategies
- Noise and Annoyance Mitigation Strategies
- Airport Marking and Striping
- Aviation and Non-Aviation Land Use Planning Support
- Aviation and Non-Aviation Business Park Planning
- Tower Siting
- AGIS
- Wildlife Hazard Assessments
- Obstruction Determinations and Removal
- FAA Land Releases and Section 163
- Electrification, Microgrids, and Renewable Energy

Future Aircraft Technologies and Electrification

With emerging aircraft technology companies like Boom already located at MASP and the growing AAM and emerging aircraft technology companies in the region, the future planning and engineering endeavors affords MASP the opportunity to evaluate and update its strategy for preparing MASP for



emerging trends in aviation technologies, including electric or hybrid-electric aircraft and vertiport design. Electrification of aircraft, ground vehicles, and AAM technology concepts have become reality in just a few

short years. The airport industry is rapidly evolving as well to prepare and build for the electric future. Mead & Hunt works with developers, manufacturers, airports, and communities to integrate electric aircraft as a safe and sustainable component of the aviation system. MASP planning efforts can accommodate infrastructure, including electrification and vertiport design, that supports electric aircraft and sustainable aviation fuels including Hydrogen. Mead & Hunt is prepared to assist in evaluations of support infrastructure for electric and hydrogen aircraft accommodations on the airfield and scheduled for and funded in the capital plan. Mead & Hunt provides a wide array of services to help our airport partners navigate the rapid evolution of electrification and AAM. These include:

- Vertiport Planning and Design
- AAM Infrastructure, Public Outreach, and Corridor Planning
- Zoning and Land Use Compatibility Analysis
- Airport and Surface Transportation Planning
- Economic Impact and Financial Analysis
- Electrical Audits and Utility Demand Assessment and Forecasting
- Microgrids and On-Site Power Generation and Storage Planning and Design
- Environmental Analysis and Permitting
- Construction Administration and Commissioning

Use of Technology

Mead & Hunt embraces new technology and implements the best in design equipment and technology to give our clients topshelf products and services. Such technology includes:

- Advanced hardware and the latest industry-leading engineering, architectural, and computer drafting software.
- Microsoft Teams for Business to carry out voice and video calls, conferencing, instant messaging, and screen-sharing.
- Newforma for file organization and transfer between internal staff, subconsultants, and clients, a collaborative utility for file sharing, transfer, and review that is linked with our other management resources, including Outlook and Outlook Calendar. It allows for message posting and notification, interactive documentation and data collection, and time management and scheduling.
- Video conferencing, for which arrangements can be made for clients who wish to be involved in meetings from remote locations.
- Revit MEP for 3D design, coordination, and documentation, which has tremendous advantages over working in a 2D

Land Development and Revenue Diversification

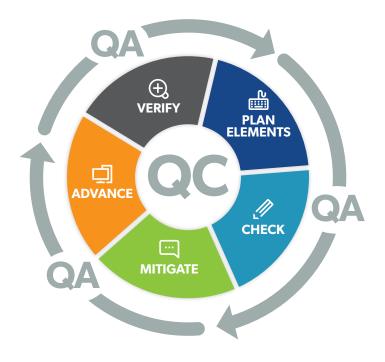
Mead & Hunt can assist the MASP to enhance its position as a sought-after aviation, aerospace, and R&D location for industries of all kinds, including manufacturing, technology, assembly, light industrial communications, engineering, and more. We have helped airports nationwide leverage aeronautical and nonaeronautical land resources for local and regional economic development, as well as providing needed revenue to support airport improvements and operations. From business park planning, utilities master planning, transportation system connectivity, Section 163, FAA coordination, accessibility, and feasibility planning, Mead & Hunt can be your partner to achieve your land development and revenue diversification goals.

Mead & Hunt has a successful track record assisting clients with strategies to leverage airport resources to enhance existing business line revenue, while at the same time identify, plan, and program new direct and indirect revenue generating initiatives. Mead & Hunt's background and experience in this important enterprise includes:

- Business Park and Other Aviation and Non-Aviation **Development Strategies**
- Monetization of Parking (Vehicle and Aircraft)
- Rates, Fees, and Charges
- Hangar Development and Pro Formas
- Leveraging Leases and Reversion Clauses
- Emerging Technologies
- Aerospace
- AAM, Spaceports, and Preparation for Space Commerce
- Energy Generation

Quality Assurance/Quality Control

A project's QA/QC Program defines processes, resources, and quality specifications to verify project deliverables comply with professional standards – including the Professional Engineers in Private Practice Handbook (NSPE) and the Architect's Handbook of Professional Practice (AIA) - as well as FAA requirements, including meeting desired project needs and expectations. We have developed and continue to upgrade and implement systems and procedures that provide both our new and repeat clients with a quality project and outcome.



Roles and Responsibilities

Establish roles and responsibilities for QA/QC activities, tasks, schedules, procedures, coordination between disciplines, control of processes, successfully resolving questions and issues, and other relevant items.

Design Log

Designers are required to populate and complete a "design log" that describes what calculations were conducted as the basis of design, what decisions were made and what regulations/ procedures were followed. These logs assist the project manager and QA/QC lead in their review of the design, as well as inform the entire design team of progress.

Team Members

Design calculations, measurements, estimates, and review of the basis of the design are conducted by at least two team members to verify accuracy of design.

Third Party Review

A team member independent of the design team conducts a complete quality control review and identifies and documents project conformance to the technical specifications and client requirements or needs. A meeting is conducted to discuss the review comments and provide recommendations for improvement of project deliverables.

Quality Assurance Review

The quality manager evaluates completed work against project quality parameters and project objectives, offering recommendations for improvement.

Documentation design logs, design review checklists, redlines, and project meeting notes all become part of the design package resources providing evidence that the process was followed in accordance with the QA/QC plan. The Project Manager and Quality Manager are responsible for reviewing that these items are completed and documented properly.

The QA/QC plan for your project will implement two levels of quality review. They are:

- **Level | Review:** This review involves the most fundamental QA/QC process (checks done within the project team often referred to as the "buddy system").
- **Level II Review:** This review consists of independent reviewers not directly involved in the project design and is additional to Level I.

Meeting the Needs of the District and Constituents

Throughout our years of service at MASP, we have had the opportunity to build relationships with the Mojave community, stakeholders, MASP users, and tenants. A big part of our success



at MASP is due to our shared values with District leadership and Airport staff. Our approach is based on direct and transparent communication. To meet the needs of the District and constituents, we will continue to have

regular contact with Airport staff to maintain the collaborative team environment we have worked hard to develop. That history breeds our sense of shared ownership between the Mead & Hunt team and MASP.

Special District Airports Experience

We are California Special District experts. Mead & Hunt has extensive experience on project teams working directly for California Airport Districts. Our seasoned team of experts includes staff whom you are familiar with, including Chuck McCormick, Jon Faucher, Kevin Smith, Rafael Gonzalez, and Lisa Harmon, among others. This is not by chance. Mead & Hunt staff have significant experience working with other Special District Airports in California, including Minter Field, Indian Wells Valley, Monterey Peninsula, Big Bear, Cameron Park, Truckee Tahoe Airport District and Space Port, and Santa Maria Public Airport District.

What makes airport districts different from other airports?

One key difference is there in no municipal, county, or state supporting staff. The Special District Airport is a government in and of itself. Due to this fact, Special Districts can benefit from a qualified, diverse, and well-rounded consultant team.

Because Special District Airports lack land use authority, they typically must obtain development approvals from the city or county within which the project lies. We have supported several airport districts in negotiating the city/county development process. Our efforts have included:

- NEPA/CEQA compliance
- Evaluating site design requirements

- Outreach and community engagement
- Preparing Section 163 Land Release documents
- Preparing development applications
- Reviewing plans and documents for consistency with local regulations or land use compatibility policies
- Aiding in interpreting commercial/industrial zoning codes to correctly apply to airport facilities
- Presenting development applications to planning commissions, city councils, and county board of supervisors among other elected and appointed boards

Special District Airports are sometimes faced with a choice on whether to annex to a city or remain under county jurisdiction. We assisted the Minter Field Airport District in evaluating the pros and cons of annexing. Our review included:

- Whether annexation might hinder the district's plan to relocate its access road
- How the district's sewage and water issues might be resolved through annexation
- Whether the city's zoning codes would adequately protect the airport from incompatible uses
- Whether the city's zoning codes would provide as much flexibility in development of non-aviation uses on district property

Since 2014, Mead & Hunt has provided on-call planning, environmental, and architecture services to the TTAD. We have assisted the TTAD on various tasks, including:

- Airport Master Plan Update in 2014 and 2022
- Demand Driver Study
- Hangar Development, Design, and Feasibility Studies
- Taxiway and Runway Extension Designs
- Noise and Annoyance Mitigation
- Analysis of Flight Procedure Planning

As part of these Special District On-Call Services Agreements, our team has extensive experience working directly for elected and appointed boards and commissions, including various Special District Boards. Planning Task Lead, Kevin Smith, AAE, is the past General Manager of the TTAD. Your project team has presented at numerous public meetings, city councils, airport commissions, airport boards, port commissions, community groups, county boards and commissions, state agencies, and the FAA. We are skilled at public engagement, workshops, and public meetings and understand the requirements and needs of California Special Districts.

Methodology and Contact Person to Resolve Agreement Issues

Working with MASP as your current Engineering Consultant has given Mead & Hunt local knowledge and familiarity with Mojave and Kern County. We understand local trends and issues. This will greatly assist and complement our proven track record of meeting schedules, responding to unanticipated changes, and fast-tracking critical tasks.

Most of the requested services under this Engineering Services Agreement will be accomplished by aviation engineers from Mead & Hunt offices in Ontario and Sacramento, California. Since Mead & Hunt is a nationwide company, subject matter experts in other offices will be highly involved in tasks to provide novel perspectives and ideas. Staff from our Santa Rosa (Windsor), Portland, and Scottsdale offices will support technical analysis, solutions, administration, and production. Located in Ontario, CA, Project Manager, Chuck McCormick, and Engineering Lead, Rafael Gonzalez, are ready to assist you. They are available on short notice to attend meetings and be onsite.

Full-Time Employees Assigned

Mead & Hunt and our partners work on a full-time equivalent methodology due to dynamic work flows. We can assure MASP that as project work is identified, staff members will be assigned full-time equivalent status to assure project work is completed on time and on budget.

Should there be unanticipated issues or agreement challenges, Chuck is always ready to take your call to resolve the issue. In addition to Chuck, Jeff Leonard, Vice President of our Southwest Region, and Jon Faucher, our Aviation Group Leader, are also able and willing to meet to address any and all service delivery issues.



leff Leonard Email: jeff.leonard@meadhunt.com Phone: 707-284-8676



Jon Faucher Email: jon.faucher@meadhunt.com **Phone:** 707-284-8697

SECTION 4

LITIGATION STATEME



Mead & Hunt, Five Year Litigation History

Prepared by Mead & Hunt Legal Department on November 9, 2023

Mead & Hunt, Inc. understands the responsibility for providing quality services within industry standards. As such, we take pride in having successfully managed our quality process over the years resulting in a history of the number of legal claims well below that typically seen in the industry. Mead & Hunt has not had any judgments or litigation related to our aviation services practice. The below litigation is unrelated to the scope of work solicited by this RFP.

Clark v. Brayman-Trumbull, A Joint Venture, et al, Case Number 23-C-590

Circuit Court of Kanawha County, West Virginia

Mead and Hunt, Inc. is one of several defendants in this personal injury case which was caused by a traffic accident which occurred in an area of roadway construction. Mead and Hunt, Inc. provided construction inspection services on a transportation project and did not design or construct the project. The case is in the pleadings phase.

Van Nest et al v. Boggs Contracting, Inc. et al, Case No. 2022-CP-22-00423

Court of Common Pleas, Fifteenth Judicial Circuit, Georgetown County, South Carolina

Mead and Hunt, Inc. is one of six named defendants in this personal injury case which was caused by a traffic accident which occurred in an area of roadway construction. Mead and Hunt, Inc. provided construction inspection services on a transportation project and did not design or construct the project. The case is in the pleadings phase.

Abdille et al v. Bizzack Construction, LLC et al, Case No. 22-C-789

Circuit Court of Kanawha County, West Virginia

Mead and Hunt, Inc. is one of five named defendants in this personal injury case which was caused by a traffic accident which occurred in an area of roadway construction. Mead and Hunt, Inc. provided construction inspection services on a transportation project and did not design or construct the project. The case is in the discovery phase.

Dowell v. Putzmeister America, Inc., C/A No. 2020-CP-21-02831

Court of Common Pleas, Florence County, South Carolina

This case involved a wrongful death claim in which Mead & Hunt had an employee presence at the job site when the incident occurred. Mead & Hunt denied any responsibility for the incident. The matter settled in mediation and the settlement is confidential. The case was dismissed in October of 2022.

Thomas Poston v. Horry County, C/A No. 2020-CP-26-03479

Court of Common Pleas, Horry County, South Carolina

As the owner's engineer, Mead & Hunt, Inc. designed improvements and provided services for the paving of dirt roads. A resident on a county road claims water damage to his property as a result of the work, though the facts of the case do not support this allegation. The parties participated in mediation in January of 2023, but the matter has not settled.

Michigan Catholic Conference v. Bacco Construction Company, et al, Case No. 20-20202-CZ

Circuit Court of Dickinson County, Michigan

Mead & Hunt, Inc. was the owner's engineer where a pipe broke during construction. Sewer bypass was connected to smaller line and caused backup into the basement of St Mary's church as well as the parish hall and rectory. Case was resolved in mediation for a nominal amount and was dismissed in the summer of 2021.

Meridian Commercial Construction, LLC v. Mead & Hunt, Inc., Case No. 60-CV-20-90

9th Judicial District Court for the State of Minnesota

Construction Staking for MNDOT Headquarters Addition – Claim received Nov 18, 2018. Meridian Construction (claimant/plaintiff), alleged survey error resulting in stakes set one foot too high causing construction rework, filed in Polk County MN (Ninth Judicial District Court) on Jan 10, 2020. The case settled.

Mead & Hunt acquired Quentin L Hampton & Associates (QLH) in June of 2017, the below matter relates to the acquired entity.

McDermott v. City of New Smyrna Beach, Case No. 2016-1009-CIDL

7th Circuit, Volusia County, Florida

Complaint filed January 6, 2016. Plaintiff alleged that City of New Smyrna Beach's negligence caused Plaintiff to fall through a portion of a dock that was not nailed down. QLH provided construction inspection services on the project and did not design or construct the project. This case was dismissed in June 2018.

Mead & Hunt acquired Sabra & Associates, Inc. in April of 2019, the below matters relate to the acquired entity.

Diane Emerson v. Sabra & Associates, Inc., et al., Case No. D-06-CV-21-007586

District Court of Maryland for Montgomery County

Claim received November 4, 2021. Sabra & Associates (Sabra) conducted a traffic survey on November 7, 2018, for Montgomery County, Maryland. Plaintiff alleged that Sabra's negligence caused Plaintiff to trip and sustain injuries. Sabra denied these allegations. This case settled and was dismissed in April 2023.

Mead & Hunt acquired Symbiont in June of 2022, the below matters relate to the acquired entity.

Building Trades United Pension Trust Fund, et al. v. Symbiont Construction, Inc., Case No. 21-CV-1401

United States District Court for the Eastern District of Wisconsin

This case involved the desire of the Building Trades United Pension Trust Fund to audit payroll during a timeframe in which Symbiont Construction, Inc. had no union employees. The case was voluntarily dismissed in January 2023.

Symbiont Science, Engineering and Construction, Inc., Zurich American Insurance Company, et al vs. Ground Improvement Services, Inc., GeoStructures, Inc. et al

United States District Court for the District of New Jersey

Symbiont and its client settled the client's claim of negligence and defective construction prior to Symbiont and its carrier's initiation of this subrogation claim. This subrogation claim is against a subconsultant/subcontractor that designed and constructed a geopier foundation system for a biogas production facility. The case is in the initial phases of litigation.

Symbiont Design-Build, LLC and Symbiont Science, Engineering and Construction, Inc. v. Glacier Construction Co., Inc., Case No. 1:21-cv-2252

United States District Court for the District of Colorado

This case involves Symbiont's complaint of defective construction on the part of a subcontractor and the subcontractor's counterclaim of negligence. Symbiont and the subcontractor corrected the work for the client prior to any legal action. Symbiont and its client settled the matter without litigation. Symbiont and its subcontractor settled their dispute and the claim was dismissed in December 2022. The settlements are confidential.

M&J General Contractors, Ltd. v. Symbiont Construction, Inc., Case No. 20-cv-00945

United States District Court for the Eastern District of Wisconsin

Symbiont Construction, Inc. f/k/a T.V. John & Son, Inc. v. Premier Commercial Cleaning, LLC, M&J General Contractors, LTD a/k/a M&J General Contractors, Inc. Case No. 79D02-1906-PL-000086

Tippecanoe Superior Court 2, Indiana

The above two cases are related to each other and involve breach of construction contract claims. Both matters were settled in 2022 and the settlements are confidential.

Augustana College v. City of Rock Island, IL, Case No. 2018 L 71

Rock Island County Circuit Court, Illinois

The City of Rock Island filed a complaint against Symbiont to make it a third-party defendant in the above case. The City of Rock Island attempted to tie a Combined Sewer Overflow study done by Symbiont in 2003 to a June 2017 sewer collapse that resulted in flooding at Augustana College with damage to several of its buildings. The City of Rock Island's own expert placed no responsibility on Symbiont. The matter settled in September of 2022 and the settlement is confidential.

Roumann Consulting, Inc. and Ron Rousse v. T.V. John & Son, Inc. et al, Case No. 2:17-cv-01407-LA

United States District Court for the Eastern District of Wisconsin

T.V. John & Son is now known by Symbiont. The circumstances of this case involve a terminated written service agreement and a claim of contract breach as a result of that termination. Numerous attempts have been made to settle the matter. The case is nearing the trial stage.

SECTION 5

COST PROPOSAL



In general, the costs of design services can vary widely depending on the specific needs of the project. However, by careful planning and coordination, Mead & Hunt can minimize the costs of these services while still ensuring that our projects are completed to a high standard of quality.

Some of the most common costs associated with providing consulting services and design services include:

- Labor: The labor cost is typically the largest component of the overall project cost. This includes the salaries and benefits of engineers, as well as the cost of supporting staff, such as technicians and drafters.
- Materials and Supplies: This will include costs for materials and supplies such as computer software, plotting equipment, and drafting supplies.
- Travel and Expenses: Our managers, designers, and engineers may need to travel to the airport site to conduct surveys, meet with airport staff, and oversee construction. These travel and expenses are typically reimbursed by the client. Due to our close office proximity in Ontario and Palmdale, travel and logistics cost will be minimal to serve MASP Needs.
- Subconsultant Fees: Mead & Hunt will also subcontract certain aspects of the projects to our subconsultants.
- Profit and Overhead: This consists of the profit and overhead markup on our services to cover the costs of running a business.

Mead & Hunt has successfully used different procedures to reduce the costs of projects, some of the cost reducing practices include:

- Early Planning: Early planning and coordination with airport staff and other stakeholders can help to identify potential problems and avoid costly delays later in the project.
- Use of Standard Designs: Using standard designs for airport facilities can help to reduce engineering costs.
- Competitive Bidding: Mead & Hunt helps our clients to obtain competitive bids from multiple contractors for specific projects.
- Value Engineering: Value engineering is a process that can be used to identify and eliminate unnecessary costs from a project.

SECTION 6

PROJECT EXPERIENCE AND REFERENCES

The following experience summaries and references present a variety of projects and programs the Mead & Hunt team have delivered recently. More are available upon request.

We encourage you to contact our clients and ask them about the service they receive from Mead & Hunt team members. We have many satisfied clients and are confident you will receive positive feedback from them.

Riverside Aviation Division RIVERSIDE, CA **On-Call Services**





Mead & Hunt is providing Airport Consulting Services to the County of Riverside's Aviation Division, which owns and operates five airports: Jacqueline Cochran Regional Airport (TRM), Hemet Ryan Airport (HMT), French Valley Airport (F70), Blythe Airport (BLH), and Chiriaco Summit Airport (L77). On-call support includes assisting Riverside County with aviation planning, engineering, and environmental support, as well as ongoing coordination with the FAA.

Tasks and services provided under this contract to date include:

- Airport Land Use Planning updates
- Strategic planning for Jacqueline Cochran Regional Airport
- Tower siting services for French Valley Airport
- ARFF station siting study
- Environmental studies and documentation in accordance with NEPA
- Federal grant administration and ACIP support
- Tower siting service for Jacqueline Cochran Airport and French Valley Airport
- French Valley Runway 18/36 Rehabilitation Design and Construction Management
- Airfield Lighting Design for Jacqueline Cochran Airport

FEATURES

- START: January 2012
- **COMPLETION**: Ongoing

KEY PERSONNEL

- Chuck McCormick: Planning/ Engineering
- Lisa Harmon: Planning/Environmental

- · Angela Jamison, County Airport Manager
- PHONE: 951-955-9418
- EMAIL: ajamison@rivco.org

Big Bear City Airport BIG BEAR CITY, CA **On-Call Services**





Nestled in the San Bernardino mountain range, Big Bear Airport is a high mountain (6,752 feet), four season resort GA facility. Mead & Hunt conducted an Airfield Electrical Assessment and found that the electrical system and layout were not properly protected against lightning strikes, which are common in the area. The investigation also uncovered damaged circuits, antiquated cans, and co-mingled medium and low-voltage circuits.

This project reconstructed the existing non-grounded light bases, installed new wiring, new counterpoise, new lightning arrestors, and new LED light fixtures, as well as protected the existing conduits in place. The project also replaced the aged supplemental wind cones and rotating beacon. New unidirectional Runway End Identifier Lights (REILs) were installed at each end of the runway, as illustrated on the approved ALP. The Precision Approach Path Indicator (PAPI) controllers were mounted too close to the ground, causing an adverse effect on the system operation. The controllers were then installed behind the existing PAPI unit, elevated to the standard elevation on an equipment rack with frangible couplings. The old vault building was undersized and in need of upgrades to meet the shortterm airport needs. A new electrical vault building was designed adjacent to the existing building and included a district-funded utility storage area.

FEATURES

- **START:** June 2012
- **COMPLETION**: Ongoing

KEY PERSONNEL

• Chuck McCormick: Project Manager

- Ryan Goss, General Manager
- **PHONE**: 909-585-3219
- EMAIL: rgoss@flybigbear.com

San Luis Obispo County Department of Airports

SAN LUIS OBISPO, CA

On-Call Airport Engineering and Planning





The San Luis Obispo County Department of Airports runs commercial service San Luis Obispo Regional Airport (SBP) and GA Oceano County Airport (L52). SBP is the gateway to California's Central Coast and supports a diverse and robust group of GA users. L52, located in Oceano, is a key destination for regional GA traffic due to its campground and proximity to the coastal sand dune recreation area.

Electric Aircraft Charging Infrastructure Planning (2021): Mead & Hunt completed the planning, permitting, and designing of charging infrastructure for electric aircraft at SBP. This project allows electric aircraft to recharge their batteries as they move through California's Central Coast. A key component of this project was coordinating with the various stakeholders. These included the airport, the FBO, the owner of the chargers, the FAA San Francisco ADO, and utility provider Pacific Gas and Electric (PG&E). The chargers, and associated utilities, were installed in early 2022.

Strategic Plan (2021): Mead & Hunt led a strategic plan for the department in 2021. The core focus of this plan was sustainability, with key strategic initiatives related to staffing, environmental stewardship, revenue generation, air service development, and infrastructure expansion. The project team held five series of stakeholder meetings to develop the strategy, and the final product is a plan that will guide the department's decision making for the next five years.

Runway 11/29 Rehabilitation, CMAR (2021): Mead & Hunt completed preliminary and final design and construction administration for this \$12 million Construction Management at Risk (CMAR) project, which included asphalt mill-and-overlay and isolated new asphalt construction for the airport's only air-carrier runway. Central to all decisions was the airport's primary concern to minimize runway downtime and disruption of commercial and passenger flight operations. To address this concern, the project was phased with a single daytime closure lasting 48 hours with 24/7 work, and the remainder of the work accomplished with nightly closures over three months. Mead & Hunt's team performed visual inspections of the milled areas each night, identifying any areas that needed additional rehabilitation measures, while also coordinating the contractor's effort to ensure reopening of the runway each morning.

FEATURES

- START: January 2020
- **COMPLETION**: Ongoing

KEY PERSONNEL

- Jeff Leonard: Principal-in-Charge
- Scott Swonke: Quality Assurance/ **Quality Control**

- Courtney Pene, Deputy Director
- PHONE: 805-781-5955
- EMAIL: cpene@co.slo.ca.us

Truckee-Tahoe Airport TRUCKEE, CA

On-Call Airport Planning Services





TRK serves the northern side of Lake Tahoe. Surrounded by ski areas, resorts, and homes, the airport is frequented by a wide variety of GA and Part 135 commercial users. Mead & Hunt has served the TTAD since 2014 through single-project and on-call planning contracts. These projects have helped the airport move in a sustainable direction that maintains a safe and efficient airfield while addressing their neighbor's concerns about overflight and noise. Mead & Hunt has completed over a dozen planning projects for TTAD, and a select few are described in more detail below.

Master Plan Update (2022–Present): The project was a focused effort to evaluate the disposition of the airfield and involved analyzing several runway alternatives to assess and quantify the potential benefits to airport neighbors in terms of reduced aircraft noise and overflight. A multi-faceted stakeholder engagement program was developed to obtain wide community input. After public input, Mead & Hunt evaluated alternative runway layouts to find what would result in the least impact on existing facilities and assist the board in selecting the scenario with the greatest benefit to the community and airport users.

Hangar Development Financial Analysis (2020): Mead & Hunt evaluated financial options for hangar development. These included running return on investment calculations for TTAD, self-funding the hangars with cash, taking out a loan, and allowing the private sector to develop the hangars under a land-lease. The results were presented to the TTAD Board for consideration and capital planning.

Obstruction Mitigation Plan (2020): The Obstruction Mitigation Plan used data from the 2018 AGIS Survey to identify airspace obstructions. Obstructions were prioritized for removal based on surface penetration. Phase 1 (plan and detailed airspace analysis) was completed in 2019 with Phase 2 (ground survey to identify specific trees to cut) completed in 2020.

Demand Drivers Study (2016): This study investigated which variables correlated with changes in aviation activity at TRK. Analysis included factors that were in and out of the control of TTAD. The core question for this study was: "Does the presence of certain airport infrastructure, improvements, and aviation products, services, pricing, and facilities encourage aircraft operators to utilize TRK when they might otherwise choose other airports in the region or not come to the area at all?"

FEATURES

• START: May 2016

• **COMPLETION**: Ongoing

KEY PERSONNEL

• Lisa Harmon: Environmental Support

CONTACT

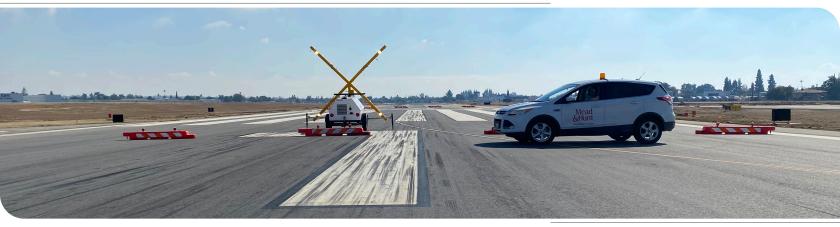
• Robb Etnyre, General Manager

• PHONE: 530-587-4119

• EMAIL: robb.etnyre@truckeetahoeairport.com

Meadows Field Airport BAKERSFIELD, CA Runway Rehabilitation 12L/30R and Taxiways





As part of the on-call services to Kern County, Mead & Hunt designed the rehabilitation of Runway 12L/30R at Meadows Field Airport (BFL). This project included the phased rehabilitation of a 10,849-linear-foot runway and 17 connector taxiways to comply with geometry changes in AC 15/5300-13A. To address the new design, Mead & Hunt performed an analysis of the airfield geometry and developed a revised geometry plan that eliminated seven connector taxiways and realigned or reconfigured another five taxiways in their entirety. Elimination and realignment of taxiways improved the safety and operational efficiency of BFL's airfield and reduced construction costs.

Working in conjunction with the FAA, Mead & Hunt created project phasing plans to allow for multi-year funding. Closing BFL's primary commercial runway would have severely impacted commercial operations. However, Mead & Hunt developed a plan to temporarily use a reconfigured parallel runway (12R/30L) for commercial operations. In addition to pavement reconstruction and airfield marking, all Runway 12L/30R edge lighting, runway centerline lighting, touchdown zone lighting, and taxiway lead-in/lead-out lighting was replaced for this project. Furthermore, this project replaced the in-pavement MALSR, which included an FAA Reimbursable Agreement. With the elimination of taxiways, the airfield marking and signage plans had to be updated and coordinated with the FAA in advance to ensure new taxiway designations were revised on publication dates. The renaming of taxiways led to an airport-wide taxiway renaming convention per current standards.

FEATURES

• **START**: May 2016

COMPLETION: November 2018

KEY PERSONNEL

• Jeff Leonard: Quality Control

• Chris Swonke: Project Manager/Lead Engineer

• Rafael Gonzalez: Civil Design Lead

CONTACT

• Ron Brewster, Airport Director

• PHONE: 661-391-1824

• EMAIL: brewsterr@kerncounty.com

Cape Canaveral Space Force Station CAPE CANAVERAL, FL Blue Origin Launch Pad and Launch Support Facilities





BRPH designed a new, 300-acre commercial launch complex located at Launch Complex 36, Cape Canaveral Space Force Station. The launch complex is instrumental for Blue Origin's mission to launch payloads or people quickly, efficiently, and affordably to enable long-term colonization of space and other planets. The complex includes the launch pad facility, support areas, environmental control system (ECS) building, lightning protection towers, approach ramp, flame deflector, exhaust duct, and water suppression systems. In addition, BRPH provided the design for the integration facility, return vehicle wash down and refurbishment facility, and engine control and assembly building. The entire complex is new from the ground up, as the existing facilities at LC-36 were demolished to meet specific requirements.

Launch Pad

BRPH provided the design for the launch pad facility, which includes a concrete approach ramp, a two-story elevated structure, a flame deflector, an exhaust duct, and a steel bridge over the exhaust duct. Related support spaces include communications rooms (payload and vehicle); electrical power rooms; UPS rooms; mechanical heating, ventilation, and air conditioning (HVAC) rooms; office/breakroom space; and upending system hydraulics equipment rooms.

Integration Facility

The Integration Facility is approximately 156,000 square feet and is where the final integration and testing of the launch vehicle, encapsulated payload, and attachment to the transportererector will take place. The facility has multiple high bays capable of holding three-stage launch vehicles, plus a payload staging and integration area. It also contains office spaces and overhead bridge cranes.

Environmental Control System

The design for the vehicle ECS includes the air intake and output to the vehicle using multiple supply ducts, centrifugal blowers, custom cooling chambers, custom heating chamber, custom humidifiers, and a GN2 tie-in system. The ECS equipment is housed in a standalone building adjacent to the launch pad, which is designed to withstand the severe launch induced environment, including direct plume impingement pressures.

Water Suppression System

The flame deflector is a water-cooled steel deflector that integrates a water spray system to abate the vehicle exhaust to reduce acoustic feedback and thermal output.

FEATURES

- START: 2018
- COMPLETION: 2022
- **COST**: Confidential

SERVICES PROVIDED

- Architecture
- Engineering
- Project Management

- Allison Caron, Senior Director of Launch Facility Development
- PHONE: 253-437-9300x204
- EMAIL: acaron@blueorigin.com

Space Florida CAPE CANAVERAL, FL

Program Support Services





BRPH has supported Space Florida in the development of Cape Canaveral Spaceport for over a decade. In this time, BRPH has been tasked to provide program planning and engineering services to improve the readiness of the Florida Spaceport System infrastructure to attract new customers. This includes infrastructure/land development planning, design and engineering, FAA spaceport launch/re-entry site licensing, operations analysis, environmental permitting and NEPA, estimating, cost-benefit analysis, scheduling and Capital Improvement Plan management for facilities at Kennedy Space Center, Cape Canaveral Space Force Station, Cecil Spaceport, and Space Coast Regional Spaceport.

BRPH has completed a wide breadth of subtasks as part of the Space Florida FDOT Program Support Services, such as:

- Vertical Launch Site Development at Launch Complexes 20 and 46, including the design of on-pad infrastructure, supporting facilities, and explosive site planning.
- Horizontal Launch Site Development at the Launch & Landing Facility, including spaceport licensing and planning/design of roadways, utilities, and new mass-graded sites for launch support facilities.
- Environmental Assessments and Analysis, including NEPA work at SLC-20 and Exploration Park, supporting biological assessments, and wetland mitigation strategies.
- Expanding the Exploration Park Manufacturing Area to support new launch vehicle processing, range, and manufacturing operations, including a large-scale land development and environmental management plan.
- Spaceport-Systemwide Capital Improvement Planning and Spaceport Master Plan to assist Space Florida in developing a flexible vision for future growth. In support of the master plan, BRPH developed a Capital Improvement Program to identify needed infrastructure with associated scopes, cost estimates, funding strategies, and recommended implementation timelines.

The BRPH team has and continues to provide nimble solutions that proactively anticipate needs of future launch users, while minimizing up-front cost and risk in a rapidly morphing space industry. BRPH developed and recommended infrastructure investments to defray start-up costs for new users. Early permitting and data gathering efforts have expedited project schedules and identified opportunities and risks in advance. In developing the Spaceport Capital Improvement Program, BRPH established a framework for continuous improvement, which enables Space Florida to be ready to respond to a wide variety of current and future aerospace customers.

FEATURES

- START: June 2017
- **COMPLETION**: Ongoing
- cost: \$10 Million (Design Services)

SERVICES PROVIDED

- Architecture
- Engineering
- Project Management
- Planning
- Cost Analysis

- Steve Szabo, Vice President of Spaceport Development
- PHONE: 321-961-0868
- EMAIL: sszabo@spaceflorida.gov

Wallops Flight Facility WALLOPS ISLAND, VA

Program Support Services





BRPH has supported the Virginia Commercial Space Flight Authority with various spaceport planning, design, and construction efforts for over three decades. Some examples include:

Horizontal Integration Facility

BRPH provided preconstruction and construction management services for a new over \$10 million horizontal integration facility that will have a preengineered metal building structure with deep foundations, overhead cranes, and support areas. The project also includes an over \$15 million launch pad complex with fuel farm, cryogenic liquids and high-pressure gases, heavy hydraulics, and controls.

MARS Payload Processing Facility

The MPPF is an industrial, multi-highbay cleanroom building designed to accommodate the processing of medium class payloads with a combination of highbay processing space and lowbay support areas. The Processing Bay (PB) is an ISO Class 8 minimum highbay cleanroom that is utilized for spacecraft testing, checkout, and propellant loading operations. It is hazardproofed and equipped with several safety systems designed to support propellant loading operations. The Ride Share Room (RSR), Equipment Airlock (EAL), Propellant Conditioning Room (PCR), and Airlock (AL) are also ISO Class 8 cleanroom areas.

Launch Pad OA and OB Design

For Launch Pad OA, BRPH developed a unique, low-cost launch facility in support of a commercial launch vehicle venture. The program was on a shoestring budget, yet the criteria stated it had to be relocatable. BRPH developed several concepts of relocatable service structures and provided budgetary cost estimates. After the client's selection of design and BRPH's presentation of a preliminary engineering report to NASA WFF, approval was granted to build the first commercially owned and operated launch facility on a federally owned property.

The design of the complex allows for future growth of both the structure and launchers. The service structure is a 202.5-foot tall steel frame facility consisting of a fixed service structure (FSS), and rotating "clam shell" platforms providing 360 degrees of access without the need for folding platforms, hard stays, winches, or similar costly features found commonly on service structures.

FEATURES

- **START**: 1991
- **COMPLETION**: Ongoing
- cost: \$120 Million (Various Projects)

SERVICES PROVIDED

- Architecture
- Engineering
- Construction Administration
- Construction Management

CONTACT

- · Alan Brittingham, PMO Manager
- PHONE: 757-999-9002
- EMAIL: alan.brittingham@vaspace.org

Wallops Flight Facility WALLOPS ISLAND, VA

Program Support Services (Continued)



Launch Pad OB was conceived to provide low-cost access for commercial launch providers as well as smaller DoD missions that do not warrant the costs of existing medium launch vehicles. The service structure is generic in design to accommodate a variety of small to medium solid propellant launchers.

Launch Pad OA Construction Management

BRPH served as the construction manager/owners representative for the Virginia Commercial Space Flight Authority implementing the designs from multiple design agencies to construct the medium class launch facility. BRPH was responsible for all aspects of the construction management, including change order management, cost estimating, construction scheduling, cost flow analysis, and construction documentation.

Spaceport America LAS CRUCES, NM

On-Call Professional Services



ILS provided professional engineering services to the New Mexico Spaceport Authority (NMSA) to facilitate the development and technical integration of the products described below in support of NMSA's horizontal, vertical, and reentry operations.

Systems Engineering and Technical Integration

ILS provided support services to establish and/or modify NMSA policies, plans, and processes necessary for launch licensing compliance and operations at Spaceport America, including:

- 1. Review existing NMSA data and information and develop a Spaceport Concept of Operations (ConOps)
- 2. Develop a Spaceport "User's Guide" to describe site capabilities and services to potential customers.
- 3. Develop a Range Safety Requirements Manual to document Spaceport America user needs in accordance with federal, state, and local regulatory and safety requirements.
- 4. Support coordination and integration efforts with White Sands Missile Range (WSMR) to streamline processes, products, and communications.

Licenses, Permits, and Other Authorizations

Pursuant to the Part 420 sections of the CFR indicated below, ILS supported the review and/or modification of respective Spaceport America specific plans and assessments for NMSA review, approval, and use to support the submittal of an application modification to the FAA:

General

- 5. Public Access Policy and Procedures (420.53)
- 6. Launch Site Scheduling Procedure (420.55)
- 7. Launch Site Users Agreement (420.57(a))
- 8. Launch Site Users Guide (420.57(a))
- 9. FAA Air Traffic Control Agreement (420.57(c))
- 10. State and Local Agreements/Notifications (420.57(d))
- 11. Launch Site Accident Investigation Plan (420.59)
- 12. Records Management Plan (420.61)

Ground Safety

- 1. Explosive Siting Plan (420.63)
- 2. Separation Distance/Explosives Handline (420.65)
- 3. Separation Distance/Storage of Incompatible Energetic Liquids (420.66)
- 4. Separation Distance/Storage of Co-Located Energetic Liquids (420.67)
- 5. Separation Distance/Storage of Explosives/Liquid Propellants (420.69)
- 6. Lightning Protection (420.71)

Infrastructure Development

ILS supported the design and activation of infrastructure and ground support equipment, including: 1. Trade studies, feasibility, and value-engineering assessments to evaluate facility requirements for design, operations and maintenance, and operability. 2. Development of Design-Build requirements, evaluation of designs for compliance, and review of acceptance data package and verification artifacts. This included the review of a launch test stand for compatibility with ongoing spaceport operations and the review of a potential user plan for solid rocket motor storage.

FEATURES

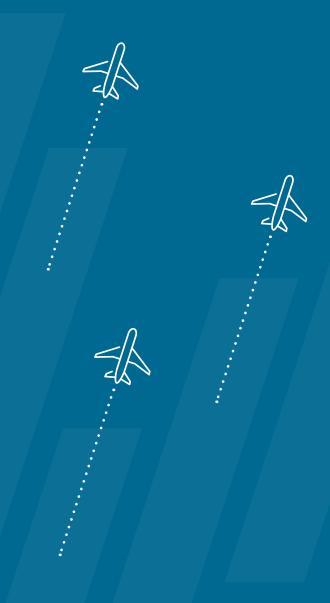
- START: July 2022
- COMPLETION: June 2023

KEY PERSONNEL

- Cheree Kiernan: Project Lead
- Chuck Wagner: **Ground Safety**

CONTACT

- Rani Bush, Business **Operations Manager**
- PHONE: 575-267-8524
- FMAII : rani bush@ spaceportamerica.com



Mead &Hunt

MEAD & HUNT, Inc. Standard Billing Rate Schedule Effective January 2023

Standard Billing Rates

Clerical	\$95.00 / hour
Technical Editor	\$129.00 / hour
Accounting, Administrative Assistant	\$121.00 / hour
Technician I, Technical Writer	\$112.00 / hour
Technician II, Surveyor - Instrument Person	\$130.00 / hour
Technician III	\$151.00 / hour
Technician IV	\$159.00 / hour
Senior Technician	\$200.00 / hour
Engineer I, Scientist I, Architect I, Planner I	\$142.00 / hour
Engineer II, Scientist II, Architect II, Planner II	\$158.00 / hour
Engineer III, Scientist III, Architect III, Planner III	\$170.00 / hour
Construction Resident Project Representative (RPR)	\$179.00 / hour
Senior Engineer, Senior Scientist, Senior Architect, Senior Planner, Construction Management	\$220.00 / hour
Project Engineer, Project Scientist, Project Architect, Project Planner	\$235.00 / hour
Senior Project Engineer, Senior Project Scientist, Senior Project Architect, Senior Project Planner	\$272.00 / hour
Senior Associate, Principal, Senior Client / Project Manager	\$340.00 / hour
<u>Expenses</u>	
Geographic Information or GPS Systems	\$100.00 / day
Total Station Survey Equipment Charges for other equipment may appear in a proposal	\$110.00 / day
Out-Of-Pocket Direct Job Expenses Such as reproductions, sub-consultants / contractors, etc.	cost plus 15%
Travel Expense	
Company or Personal Car Mileage * Rates will be charged at Current IRS rate	\$ IRS rate / mile*
Air and Surface Transportation	cost plus 15%
Lodging and Sustenance	cost plus 15%
Pilling and Dayment	

Billing and Payment

- Travel time is charged for work required to be performed out-of-office. A minimum of two hours will be billed for any work out-of-office.
- Invoicing is on a monthly basis for work performed. Payment for services is due within 30 days from the date of the invoice. An interest charge of 1.5% per month is made on the unpaid balance starting 30 days after the date of invoice.

This schedule of billing rates is effective January 1, 2023, and will remain in effect until December 31, 2023, unless unforeseen increases in operational costs are encountered. We reserve the right to change rates to reflect such increases.

MEAD & HUNT, Inc. Standard Billing Rate Schedule Effective January 1, 2024

Standard Billing Rates

•	Clerical	\$100.00 / hour
•	Technical Editor	\$136.00 / hour
•	Senior Editor	\$198.00 / hour
•	Accounting, Administrative Assistant	\$128.00 / hour
•	Technician I, Technical Writer	\$118.00 / hour
•	Technician II, Surveyor - Instrument Person	\$137.00 / hour
•	Technician III	\$159.00 / hour
•	Technician IV	\$168.00 / hour
•	Senior Technician	\$211.00 / hour
•	Engineer I, Scientist I, Architect I, Interior Designer I, Planner I	\$150.00 / hour
•	Engineer II, Scientist II, Architect II, Interior Designer II, Planner II	\$167.00 / hour
•	Engineer III, Scientist III, Architect III, Interior Designer III, Planner III	\$179.00 / hour
•	Construction Resident Project Representative (RPR)	\$189.00 / hour
•	Senior Engineer, Senior Scientist, Senior Architect, Senior Interior Designer, Senior Planner, Construction Manager	\$232.00 / hour
•	Project Engineer, Project Scientist, Project Architect, Project Interior Designer, Project Planner	\$248.00 / hour
•	Senior Project Engineer, Senior Project Scientist, Senior Project Architect, Senior Project Interior Senior Project Planner	•
•	Senior Associate, Principal, Senior Client / Project Manager	\$355.00 / hour
<u>Expe</u> •	Geographic Information or GPS Systems	•
Trav	el Expense	
•	Company or Personal Car Mileage * Rates will be charged at Current IRS rate	\$ IRS rate / mile*
•	Air and Surface Transportation	*
•	Lodging and Sustenance	cost plus 15%

Billing and Payment

- Travel time is charged for work required to be performed out-of-office. A minimum of two hours will be billed for any
 work out-of-office.
- Invoicing is on a monthly basis for work performed. Payment for services is due within 30 days from the date of the invoice. An interest charge of 1.5% per month is made on the unpaid balance starting 30 days after the date of invoice.

This schedule of billing rates is effective January 1, 2024, and will remain in effect until December 31, 2024, unless unforeseen increases in operational costs are encountered. We reserve the right to change rates to reflect such increases.



ILS23-12-001

December 15, 2023

Mr. Kevin Smith Mead & Hunt

Subject: Response to Mojave Air and Space Port (MASP) Request for Rate Sheet

Dear Mr. Smith:

The Integrated Launch Solutions, Inc (ILS) fully burdened rates for the 2025 and 2026 calendar years are included in Table 1.

Table 1. ILS Fully Burdened Labor Rates (ILS Proprietary)

Position	2024	2025
Analyst I	\$ 53.60	\$ 54.70
Analyst II	\$ 60.10	\$ 61.30
Analyst III	\$ 92.50	\$ 94.30
Engineerl	\$ 78.60	\$ 80.20
Engineer II	\$ 92.50	\$ 94.30
Engineer III	\$ 115.60	\$ 117.90
Engineer IV	\$ 138.70	\$ 141.50
Engineer V	\$ 161.90	\$ 165.10
Project Manager	\$ 175.70	\$ 179.20
SME-1	\$ 150.00	\$ 150.00
SME-2	\$ 175.00	\$ 175.00
SME-3	\$ 200.00	\$ 200.00

Please contact me at 321-830-2481 or cheree.kiernan@ilscorporation.com if you have any questions or need additional information.

Sincerely,

Cheree A. Kiernan

Cheree A. Kiernan President | CEO

Standard Corporate Billing Rates 2024

Description / Labor Category	Ra	te
Architect I	\$	90.00
Architect II	\$	100.00
Architect III	\$	115.00
Architect IV	\$	135.00
Architect V	\$	145.00
Architect VI	\$	180.00
Architect VII	\$	195.00
Assistant Project Manager	\$	150.00
Asst. Construction Superintendent	\$	70.00
BIM Coordinator	\$	120.00
BIM Manager	\$	180.00
CADD Administrator	\$	105.00
Chief Cost Estimator	\$	240.00
Commissioning Authority	\$	160.00
Construction Superintendent	\$	180.00
Contingency/Generic Planning	\$	145.00
Contract Administor	\$	115.00
Cost Estimator	\$	180.00
Design Manager (DM) (onsite)	\$	225.00
Designer I	\$	90.00
Designer II	\$	100.00
Designer III	\$	110.00
Designer IV	\$	140.00
Designer V	\$	155.00
Director	\$	270.00
Drafter I	\$	70.00
Drafter II	\$	80.00
Drafter III	\$	90.00
Engineer I	\$	105.00
Engineer II	\$	115.00
Engineer III	\$	125.00
Engineer IV	\$	145.00
Engineer V	\$	165.00
Engineer VI	\$	215.00
Engineer VII	\$	235.00
HSE Field Manager	\$	210.00
Interior Designer I	\$	80.00
Interior Designer II	\$	90.00
Interior Designer III	\$	100.00
Interior Designer IV	\$	110.00
Interior Designer V	\$	125.00
Interior Designer VI	\$	150.00
Intern	\$	65.00

Standard Corporate Billing Rates 2024

	_	
Description / Labor Category	Ra	
Jr. Cost Estimator	\$	155.00
Jr. Planner/Scheduler	\$	120.00
Marketing	\$	120.00
National Practice Leader	\$	270.00
Operations Administrator	\$	140.00
Planner/Scheduler	\$	155.00
Principal	\$	320.00
Program Manager	\$	250.00
Project Accountant	\$	105.00
Project Adminstrator	\$	90.00
Project Controls Analyst	\$	130.00
Project Controls Analyst II	\$	140.00
Project Controls Specialist I	\$	90.00
Project Controls Specialist II	\$	100.00
Project Controls Specialist III	\$	110.00
Project Executive	\$	230.00
Project Manager	\$	180.00
Quality Control	\$	240.00
Reproduction and Facilities	\$	100.00
Safety Manager	\$	170.00
Senior Marketing	\$	185.00
Sr BIM Coordinator	\$	120.00
Sr Construction Superintendent	\$	205.00
Sr Cost Estimator	\$	220.00
Sr Document Control Specialist	\$	195.00
Sr. Industrial Engineer	\$	255.00
Sr. Planner/Scheduler	\$	195.00
Sr. Process Engineer	\$	265.00
Sr. Project Accountant	\$	130.00
Sr. Project Manager	\$	230.00
Studio Leader	\$	215.00
System Security-IT	\$	225.00
Word Processor	\$	85.00

AGREEMENT FOR ENGINEERING SERVICES

THIS AGREEMENT is made	by Mojave	Air and	Space Port,	a California	. Airport
DISTRICT ("DISTRICT"), and	, a	_ ("ENG	INEER") as	of January	1, 2024
("Effective Date").					

RECITALS

WHEREAS, the DISTRICT has the need to retain the ENGINEER for various engineering services, including airport and spaceport planning, at Mojave Airport, Mojave, California;

WHEREAS, the DISTRICT desires to employ an ENGINEER for a term of five (5) years from the Effective Date in order to provide consulting and engineering services for various projects or tasks as requested by the DISTRICT; and

WHEREAS, the ENGINEER is a qualified engineering firm licensed in the State of California and desires to perform said work;

NOW, THEREFORE, DISTRICT and ENGINEER agree as follows:

AGREEMENT

1. Engineering Services

- 1.1 This contract will serve as a master contract. As work is authorized by the DISTRICT, a task order will be developed and performed as a part of this contract. Each task order will describe in writing the work to be completed (Scope of Work), the time frame to be completed, the fee, and method of payment. Each task order will be executed by both the DISTRICT and the ENGINEER. This is not an exclusive contract, and DISTRICT reserves the right to contract with other persons or firms to provide engineering services, as it deems appropriate in its sole and exclusive discretion.
- 1.2 ENGINEER shall furnish the technical, expertise, administrative, labor, supplies equipment, and facilities necessary to perform and complete the services pursuant to this Agreement. ENGINEER shall perform the Services using its best efforts, but no less than the level of care and skill exercised by other professionals in the same field.
- 1.3 ENGINEER shall not modify or provide additional services without DISTRICT's express written consent. ENGINEER shall not be compensated for services not authorized in writing by the DISTRICT.
- 1.4 ENGINEER shall not subcontract or assign responsibility for performance of any portion of this Agreement without the prior written consent of DISTRICT. Except as otherwise specifically approved by DISTRICT, ENGINEER shall include appropriate provisions of this Agreement in subcontracts so rights conferred to DISTRICT by this Agreement shall not be affected or diminished by subcontract. There shall be no contractual relationship intended, implied, or created between DISTRICT and any subcontractor with respect to services under this

Agreement.

2. DISTRICT Responsibilities

The DISTRICT shall:

- 2.1 Provide access to and make provisions for the ENGINEER to enter upon DISTRICT-owned property, and make reasonable efforts to assist ENGINEER in obtaining access to property not controlled by or in the possession of the DISTRICT, as necessary for the ENGINEER to perform his work under this AGREEMENT.
- 2.2 Make available to the ENGINEER all technical data in the DISTRICT's possession, including maps, surveys, property descriptions, borings, and other information required by the ENGINEER relating to his work.
- 2.3 Issue Notice to Airman (NOTAM's) and announcements regarding the impact of the project activities at the Airport, as required for specific project.
- 2.4 Examine all reports, estimates, drawings, specifications, and other documents presented by the ENGINEER and render, in writing, decisions pertaining thereto within a reasonable time so as not to delay the work of the ENGINEER.

3. Compensation

- 3.1 The compensation for services provided pursuant to this AGREEMENT shall be negotiated for each respective task at the rate in the Schedule of Fees attached as Exhibit "A". ENGINEER shall be allowed to negotiate an update to the Schedule of Fees no more than annually, to be effective at the beginning of each calendar year.
- 3.2 ENGINEER shall complete and submit an invoice showing date of work, description of work performed, amount of invoice, and supporting documentation not more than monthly. DISTRICT shall pay the ENGINEER within thirty (30) days of receipt of an invoice. If DISTRICT disputes any part of the invoice, it shall notify ENGINEER within 15 days of receipt of the invoice, but shall pay any undisputed portions of an invoice. DISTRICT shall not be liable for any additional fees, unless it is agreed in a writing signed by an authorized employee.

4. Permits & Approvals

ENGINEER shall obtain permits and approval of all governmental authorities having jurisdiction over the services and such approvals and consents from such other individuals or bodies as may be necessary for the completion of a task, unless otherwise specified in a task order.

5. Insurance

5.1 The ENGINEER shall maintain, at ENGINEER's own expense during the Term, insurance with respect to ENGINEER's business, the premises, and all activities or services in the performance of this Agreement, of the types and in the minimum amounts as set forth below; provided that if ENGINEER carries insurance with higher limits than described below the higher limits shall apply.

- 5.1.1 Commercial general liability (CGL) insurance written for bodily injury, personal injury, and property damage of \$2,000,000 combined single limit per occurrence.
- 5.1.2 Business automobile liability insurance insuring all owned, non-owned, and hired automobiles, of \$1,000,000.00 combined single limit per occurrence combined single limit per accident for bodily injury and property damage.
- 5.1.3 Workers' Compensation: ENGINEER and all subcontractors shall cover or insure all their employees providing the Services in minimum amounts required by law.
- 5.1.4 Throughout the duration of the Agreement, ENGINEER shall carry professional liability insurance in a standard form, including errors and omission coverage, with a company admitted to do insurance business in the State of California and approved by the DISTRICT. Such insurance shall be on a work basis such that the insurance company is aware of and covers the Agreement. Said insurance shall be written with a minimum limit of \$1,000,000.00.
- 5.2 The CGL and automobile insurance policies required above shall contain or be endorsed to contain the following specific provisions:
 - 5.2.1 ENGINEER's insurance shall be primary insurance as respects DISTRICT, its directors, officers, employees, and agents, and any insurance or self-insurance maintained by DISTRICT shall be excess of ENGINEER's insurance and shall not contribute to it.
 - 5.2.2 Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage under the policy provided to DISTRICT, its directors, officers, employees, and agents.
 - 5.2.3 The policies shall contain a waiver of transfer rights of recovery ("waiver of subrogation") against DISTRICT, its directors, officers, employees, and agents for any claims arising out of the work of ENGINEER.
 - 5.2.4 The policies may provide coverage that contains deductible or self-insured retentions. Such deductible and/or self-insured retentions shall not be applicable with respect to the coverage provided to DISTRICT under such policies. ENGINEER shall be solely responsible for deductible and/or self-insured retention, and DISTRICT, at its option, may require ENGINEER to secure the payment of such deductible or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit. The insurance policies that contain deductibles or self-insured retentions in excess of \$25,000 per occurrence shall not be acceptable without the prior approval of DISTRICT.
 - 5.2.5 Prior to start of work under this Agreement, ENGINEER shall file with DISTRICT evidence of insurance as required above from an insurer or insurers certifying to the required coverage with DISTRICT and its directors, officers, employees, and agents listed as additional insureds. DISTRICT reserves the right to require certified complete

copies of any insurance coverage required by this Agreement, but the receipt of such policy or policies shall not confer responsibility upon the DISTRICT as to sufficiency of coverage.

- 5.3 All Coverages: Each policy required in this section shall contain a policy cancellation clause that provides the policy shall not be canceled or otherwise terminated by the insurer or ENGINEER or reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the DISTRICT, Attention: General Manager.
- 5.4 All insurance required by this Agreement shall be placed with insurers licensed by the State of California to transact insurance business of the types required herein. Each insurer shall have a current Best Insurance Guide rating of not less than A: VII unless prior approval is secured from the DISTRICT as to the use of such insurer.
- 5.5 ENGINEER shall include all subcontractors as additional insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein. ENGINEER shall maintain evidence of compliance with the insurance requirements by the subcontractors at the job site and make them available for review by the DISTRICT.

6. Status

ENGINEER is an independent contractor and shall not be considered an employee of DISTRICT.

7. Time for Completion

For all task orders associated with this AGREEMENT, the ENGINEER shall begin work immediately upon receipt of the Notice to Proceed from the DISTRICT. The ENGINEER shall provide DISTRICT with a schedule for each associated task, and shall exercise due diligence in efforts to complete work in a timely fashion.

8. Record Retention

Except for materials and records delivered to DISTRICT, ENGINEER shall retain all materials and records prepared or obtained in the performance of this AGREEMENT, including financial records, for a period of at least three (3) years after ENGINEER's receipt of the final payment under this AGREEMENT. Upon request by DISTRICT, ENGINEER shall make such materials and records available to DISTRICT at no additional charge and without restriction or limitation on their use. ENGINEER shall also make such materials and records available to authorized representatives of the State and Federal governments at no additional charge.

9. **DOCUMENTATION**

ENGINEER shall prepare and deliver to DISTRICT, at no additional charge, the items of work described in this AGREEMENT to document the performance of this AGREEMENT and shall furnish to DISTRICT such information as is necessary to enable DISTRICT to monitor the performance of this AGREEMENT.

10. Ownership of Documents

- 10.1 All information, data, reports, records, and maps as are existing and available for the carrying out of tasks and work orders, shall be furnished to the ENGINEER without charge by the DISTRICT, and the DISTRICT shall cooperate with the ENGINEER in every way possible during all phases of the work authorized by the DISTRICT.
- 10.2 DISTRICT is retaining ENGINEER to provide the services on behalf of and for DISTRICT with the understanding that all studies, reports, plans, and other similar documents, in whatever format or medium, prepared by ENGINEER pursuant to this Agreement (the "Materials") are the property of DISTRICT. ENGINEER agrees it has no right, title, or ownership interest in or to the Materials, and expressly waives any such claims; provided, ENGINEER has a non-exclusive license to retain copies of the Materials. If DISTRICT uses any of the Materials furnished or prepared by ENGINEER for any purpose other than that of this Agreement the ENGINEER shall be released from responsibility concerning the use of the Materials. ENGINEER may retain copies of the Materials. DISTRICT may use or reuse the Materials prepared by ENGINEER without additional compensation to ENGINEER. Any Materials given to or prepared or assembled by the ENGINEER under this Agreement shall not be made available to any individual or organization other than DISTRICT by the ENGINEER without the prior written approval of the DISTRICT.
- 10.3 "Proprietary Information" means technical data, knowledge, patents, marketing data or techniques, cost or pricing information, and ideas that a Party treats as and considers to be unique, valuable, and proprietary, including, without limitation, any information protected under the Trade Secrets Act, 18 U.S.C. § 1905, and information exempt from disclosure under the California Public Records Act, Government Code section 6250, *et seq.* "Proprietary Information" does not include the "Materials."
- 10.4 Each Party is responsible for identifying in writing all Proprietary Information transferred pursuant to this Agreement. All such Proprietary Information disclosed under this Agreement shall remain the property of, and be deemed proprietary to, the disclosing Party. The receiving Party shall protect and hold in trust for the disclosing Party, and use such Proprietary Information, solely and exclusively in accordance with the terms of this Agreement. A receiving Party shall not be liable for disclosure or use of Proprietary Information if the same:
 - 10.4.1 was in the public domain, through no fault of the receiving Party, at the time it was disclosed:
 - 10.4.2 was known to and available for use by the receiving Party at the time of receipt from the disclosing Party;
 - 10.4.3 is proven by the receiving Party to have been independently developed by the receiving Party;
 - 10.4.4 becomes known to and available for use by the receiving Party from a source other than the disclosing Party; or,
 - 10.4.5 is required to be disclosed by law; provided, the receiving Party shall make its best efforts to notify the disclosing Party prior to the disclosure of the information.
 - 10.5 With respect to Proprietary Information disclosed by one Party to another:

- 10.5.1 The Parties agree that each shall retain ownership of their respective Proprietary Information and that the other Party shall not acquire any rights therein, except the right to use such Proprietary Information to the extent provided in this Agreement.
- 10.5.2 Proprietary Information may be disclosed to a third party necessary for completion of the Services, but the third party shall be notified of the provision of this Section 4, which shall be incorporated in any contract with said third party.
- 10.5.3 In the event of termination of this Agreement, each receiving party shall return to the disclosing party the disclosing party's proprietary information within thirty (30) days of termination.

11. TERMINATION

- 11.1 This AGREEMENT may be terminated by either party without cause upon sixty (60) days written notice to the other party.
- 11.2 This AGREEMENT may be terminated by either party by written notice in the event of a default hereunder, provided the defaulting party shall have fifteen (15) days to cure the default. If terminated because of the fault of others than the ENGINEER, the ENGINEER shall be paid for services performed to the date of termination, including reimbursements then due. If termination is due to the fault of the ENGINEER, the DISTRICT shall pay for all services satisfactorily received, but is not obligated to pay for services relating to the item of fault.
- 11.3 In the event of termination of this AGREEMENT, ENGINEER shall provide to the DISTRICT all Materials prepared hereunder regardless of any disputes concerning any sums that may be due ENGINEER, and other items prepared to the date of termination pursuant to this AGREEMENT.

12. Abandonment by Engineer

In the event that ENGINEER ceases performing services under this AGREEMENT or otherwise abandons a task prior to completing all of the services, ENGINEER shall, without delay, deliver to DISTRICT all Materials and records prepared or obtained in the performance of this AGREEMENT, and shall be paid for the reasonable value of the services performed up to the time of cessation or abandonment, less a deduction for any damages or additional expenses which DISTRICT incurs or reasonably expects to incur, including attorney fees, as a result of such cessation or abandonment.

13. Litigation

- 13.1 In the event of any legal action or proceeding arising from this AGREEMENT, the prevailing party in such litigation shall be entitled to costs, expenses, and reasonable attorney fees, including those incurred on appeal and in the enforcement of a judgement.
- 13.2 This Agreement is made and to be performed in Kern County, California, which shall be the venue for any legal action or proceeding.

14. Compliance with Laws

In performing this AGREEMENT, ENGINEER shall (in accordance with ENGINEER's professional standard of care) comply with all applicable laws, statutes, ordinances, rules, and regulations, whether of Federal, State, or local origin.

15. ASSIGNMENT

This AGREEMENT shall not be assignable or transferable in whole or in part by ENGINEER, whether voluntarily, by operation of law, or otherwise; provided, however, that ENGINEER shall have the right to subcontract that portion of the services for which ENGINEER does not have the facilities to perform so long as ENGINEER notifies and receives prior written approval from DISTRICT of such subcontracting prior to commencing said services. Any other purported assignment, transfer, or subcontracting shall be void.

16. Engineer's Liability

The ENGINEER shall indemnify and hold the DISTRICT harmless from any and all claims, damages, liability, or suits to the extent caused by the negligent acts, errors or omissions of the ENGINEER under this AGREEMENT.

17. Notices

Any and all notices or other matters required or permitted by this Contract or by law to be served on, given to, or delivered to either Owner or Engineer by the other party to this Contract must be in writing and will be deemed duly served, given, or delivered when (1) personally delivered to the party to whom it is addressed, or (2) deposited in the United States mail, first-class postage prepaid, addressed as provided below. Either party may change the party's address for these purposes by giving written notice of the change to the other party in the manner provided in this paragraph.

18. Sole And Only Agreement; Modification

The parties intend this Agreement to be a final and complete description of their Agreement. This Agreement supersedes any and all prior agreement of the parties, whether written or oral. This Agreement may be amended, altered, modified, revoked, or terminated only by a writing signed by both parties, and by no other means.

19. Federal Obligation

It is understood by the DISTRICT and the ENGINEER that the FAA is not a party to this AGREEMENT and will not be responsible for costs, except as agreed upon by the DISTRICT and the FAA under a Grant AGREEMENT for a task.

20. Certification of Engineer

The DISTRICT and the ENGINEER hereby certify that the ENGINEER has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this AGREEMENT to:

- 20.1 Employ or retain, or agree to employ or retain, any firm or persons, or
- 20.2 Pay, or agree to pay, to any firm, person, or organization, any fee, contribution,

donation, or consideration of any kind.

21. Governing Law

The construction of this AGREEMENT, and the rights and liabilities of the parties, shall be governed by the laws of the State of California.

22. Federal Requirements

- 22.1 During the performance of this AGREEMENT, the ENGINEER, for itself, its assignees, and successors in interest, agrees as follows:
 - 22.1.1 Compliance with Regulations. The ENGINEER shall comply with the Regulations relative to nondiscrimination in Federally assisted programs of the Department of Transportation (hereinafter called "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the "Regulations") which are herein incorporated by reference and made a part of this AGREEMENT.
 - 22.1.2 Nondiscrimination. The ENGINEER, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The ENGINEER shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the AGREEMENT covers a program set forth in Appendix B of the Regulations.
 - 22.1.3 Solicitations for Subcontracts, Including Procurement of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the ENGINEER for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the ENGINEER or the ENGINEER's obligations under this AGREEMENT and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
 - 22.1.4 Information and Reports. The ENGINEER shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the DISTRICT, the FAA, or the Comptroller General of the United States to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of the ENGINEER is in the exclusive possession of another who fails or refuses to furnish this information, the ENGINEER shall so certify to the DISTRICT or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information. The ENGINEER shall maintain all required records for three (3) years after the sponsor makes final payment and all other pending matters are closed.
- 22.2 In the event of the ENGINEER's noncompliance with the nondiscrimination provisions of this AGREEMENT, the DISTRICT shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

- 22.2.1 Withholding of payments to the ENGINEER under this AGREEMENT until the ENGINEER complies, and/or
- 22.2.2 Cancellation, termination, or suspension of the AGREEMENT, in whole or in part.

23. Savings Clause

If any provision of this Agreement is held void, illegal or unenforceable, or in conflict with any law of a federal, state, or local government having jurisdiction over the subject matter of this Agreement, the validity of the remaining portions shall not be affected thereby and shall remain in full force and effect. The Parties agree to negotiate in good faith to replace any illegal, invalid, or unenforceable provision with a legal, valid, and enforceable provision that, to the extent possible, will preserve the economic bargain of this Agreement, or otherwise to amend this Agreement to achieve such result.

24. Authority

DISTRICT and ENGINEER represent and warrant to the other that (a) it has full legal power and authority to enter into this Agreement and to perform its obligations hereunder, (b) that this Agreement has been duly approved and authorized by all requisite action of the Party, and (c) this Agreement has been duly executed and constitutes a valid and legally binding obligation of the Party.

IN WITNESS WHEREOF, DISTRICT and ENGINEER have made and executed this AGREEMENT as of the day and year first written above.

Mojave Air and Space Port	[engineer]		
By	By		
[name, title]	[name, title]		
1434 Flightline	[address]		
Mojave, CA 93501	[address]		
Attn:	Attn:		
Email:	Email:		

Mojave Air & Space Port Treasurer's Report For the month ended November 30, 2023

Cou	nty
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	General	Treasury	LAIF	Total
Beginning Balance	\$ 3,218,803.89	\$ 2,839,080.31	\$ 3,303,227.06	\$ 9,361,111.26
Receipts:				
Operating Revenues	1,005,783.35	-	-	1,005,783.35
Interest Income	112.67	44,871.62	-	44,984.29
Tax Proceeds	-	7,063.37		7,063.37
Total Receipts	1,005,896.02	51,934.99		1,057,831.01
Expenditures:				
Operating Expenses	(1,988,285.61)		-	(1,988,285.61)
Project Expenses				
Total Expenditures	(1,988,285.61)			(1,988,285.61)
Transfers:				
Between General and County Treasury	-	-	-	-
Between General and LAIF				
Total Transfers				
Ending Balance	\$ 2,236,414.30	\$ 2,891,015.30	\$ 3,303,227.06	\$ 8,430,656.66

Mojave Air & Space Port

Fuel Inventory Report

NOVEMBER 2023

JET A		
Beginning Inventory		91,802
Gallons Delivered		
Gallons Purchased		79,049
Defuels	_	-
Total Gallons Delivered		79,049
Gallons Pumped		
Gallons Sold		82,819
Refuels		-
Tank farm/Line truck sumps		50
Delivery Samples		10
Total Gallons Pumped		82,879
Ending Inventory		87,972
Physical Check		85,971
Inventory Value at	3.69	\$317,232.99

	AVGAS		
Beginning Inventory Gallons Delivered			7,913
0 "	Gallons Purchased		7,989
Gallons Pumped	0.11		0.405
	Gallons Sold		2,405
	Tank farm/Line truck sumps		5
	Delivery Samples		
	Total Gallons Pumped		2,410
Ending Inventory			13,492
Physical Check			13,538
nventory Value at		5.70	\$77,166.60

LUBRICANTS	
Beginning Inventory	149
Quarts Purchased	0
Quarts Sold	6
Ending Inventory	143
Physical Check	144
Aeroshell 110; 100W; 15/50 Multi	
98@ \$8.35;18@ \$8.35; 28@ \$11.29	\$1,284.72

PRIST	
Beginning Inventory	117
Cans Purchased	0
Cans Sold	0
Ending Inventory	117
Physical Check - Cans	117
Physical Check - Bulk	13.8
117 CANS @ \$7.40; 12.4 Gallons @ 132	\$3,272.40

UNLEA	ADED FUEL	
Beginning Inventory		769.6
Gallons Purchased		758.0
Gallons Used	_	437.2
Ending Inventory	•	1,090.4
Physical Check		977.6
Inventory Value at	\$4.20	\$4.104.94
Inventory Value at	φ4.20	\$4,104.94

	DIESEL FUEL	
Beginning Inventory		847.6
Gallons Purchased		590.0
Gallons Used		522.8
Ending Inventory		914.8
Physical Check		904.8
Inventory Value at	\$4.72	\$4,269.75

November 2023 Fuel Inventory

\$407,331.40

November Gallons Sold Year to Date 85,224 440,302

MOJAVE AIR & SPACE PORT

Revenue and Expense by Function

For the Five Months Ending Thursday, November 30, 2023

	Rents & Leases	Rents & Leases	Flight Related	Non-flight Related	
Description	Aviation	Non-aviation	Activities	Activities	Total
Operating Revenue					
Fuel Sales & Services	2,713	-	2,061,975	-	2,064,689
Cost of Fuel & Lubricants Sold	-	-	1,530,967	-	1,530,967
Gross Profit on Fuel Sales &					
Services	2,713	-	531,008	-	533,722
Rents & Leases	2,470,938	855,115	1,688	9,948	3,337,689
Other Revenue	-	=	20	128,647	128,667
Total Operating Revenue	2,473,651	855,115	532,716	138,595	4,000,077
Operating Expense					
Salaries & Benefits	657,632	447,127	485,081	270,312	1,860,153
Noncapitalized Equipment	41,112	12,352	5,619	3,648	62,731
Supplies	31,562	14,124	43,578	7,448	96,712
Licensing & Software	12,791	7,525	6,945	10,044	37,305
Communications	11,614	6,958	6,296	4,308	29,175
Training & Travel	902	664	664	38,064	40,295
Permits & Fees	1,119	-	3,504	3,542	8,165
Repairs & Maintenance	174,925	79,970	84,881	2,094	341,870
Engineering Services	84,812	58,815	37,589	32,661	213,877
Legal & Accounting Services	41,927	=	-	79,672	121,599
Operating Services	186,816	63,716	58,964	36,502	345,998
Bad Debts	-	3,106	-	-	3,106
Dues & Subscriptions	4,408	4,146	4,128	10,784	23,466
Insurance	54,171	54,171	54,171	54,171	216,686
Marketing	4,449	4,436	4,436	18,077	31,397
Rent Expense	2,276	992	41,548	1,791	46,606
Utilities	59,618	112,087	24,605	25,332	221,642
Tenant Retention	3,166	3,166	-	-	6,331
Miscellaneous	1,488	1,099	10,807	26,226	39,619
Depreciation	323,848	9,016	510,789	12,855	856,508
Expense Reimbursements	-	-	(10,119)	(68,646)	(78,765)
Total Operating Expense	1,698,636	883,469	1,373,486	568,884	4,524,476
Total Operating Expense	1,050,050	003,403	1,373,400	300,004	4,324,470
Excess (Deficit) of Operating					
Revenue over Operating Expense	775,015	(28,355)	(840,770)	(430,289)	(524,398)
Nonoperating Revenue					
Property Taxes	93,378	31,126	-	-	124,504
Interest Income	<u>-</u>	-	-	47,771	47,771
Other Nonoperating Revenue	-	-	-	200	200
Total Nonoperating Revenue	93,378	31,126	-	47,971	172,475
Excess (Deficit) of Revenue over			(0.00 ===0)	(202 240)	(0.000)
Expense	868,393	2,771	(840,770)	(382,318)	(351,923)
EAA Droinete					
FAA Projects Grants In Aid-Federal/State			261 245		261 245
FAA Projects Expense	-	-	361,245	022 655	361,245 932,655
Excess (Deficit) of FAA	-	-	-	932,655	932,033
Projects Revenue over FAA					
•			261 245	(022 655)	(E71 A11)
Projects Expense Reserve Designations		<u> </u>	361,245	(932,655)	(571,411)
Infrastructure Projects				11// 110	11/110
Property Investments	-	-	-	114,110 105,000	114,110 105,000
Building Improvements	-	-	-	168,794	168,794
Equipment	-	-	-	77,368	77,368
Employee Benefits	-	- -	-	250,000	250,000
Total Reserve Designations		<u>-</u>		715,272	715,272
Total Neselve Designations	<u>-</u>	<u> </u>	<u> </u>	113,414	113,414

Mojave Air & Space Port

Customers Over 90 Days Past Due

	1-30 Days	31-60 Days	61-90 Days	90+ Days	TOTAL	Comments
American Verde Technologies	16.19	16.71	18.16	1,769.85	1,820.91	Vacated Property - should be sending payment
High Desert Wireless	0.00	0.00	0.00	0.00	801.30	Vacated Property - should be sending payment
Virgin Orbit	0.00	0.00	0.00	56,750.06	56,750.06	Working with legal
Masten	0.00	0.00	0.00	166,786.92	166,786.92	Working with legal
Aged AR as 12/28/2023	296.448.80	79.916.55	18.532.04	225.306.83	620.204.22	

		January	February	March	April	May	June	July	August	September	October	November	December			
otal Income		\$ 19,714.28	¢ 14.697.01	¢ 10.363.45	¢ 17 F0F 00	¢ 17.755.10	¢ 16.650.07	\$ 17,349.03	\$ 22.925.77	\$ 16,289.35	17 007 06	¢ 16 722 00	ė			
otal Expenses		\$ 17,208.62						\$ 17,349.03		\$ 22.860.38	,	. ,				
iotai Expenses		=======	3 19,098.30	3 17,223.74	, ,	3 18,338.33 ========	, -,	3 19,470.73	3 20,304.14	, , ,	========	, -,				
Net Income			\$ (5,010.59)					\$ (2,121.70)		\$ (6,571.03)				\$ (13,927.72)		
Tet meeme		ψ 2,303.00	ψ (5)010.55)	ψ 2,030.71	Ç (1,000100)	Ç (703.23)	ψ (3):00:32)	Ç (2)121170)	φ 2,502.05	ψ (0,371.03) (5,525.66	ψ (2)233.02)	Ψ	ψ (13)327172)		
/IEMBERSHIPS		577	609	636	658	660	634	553	633	651	686	653	0			
lew Members		48	54	51	45	42	55	70	95	70	64	27	0			
ancelled Members		-26	-39	-35	-35	-60	-56	-53	-33	-23	-28	-35	0			
let Change		22	15	16	10	-18	-1	17	62	47	36	-8	0			
lotes for board:	JANUARY:	Of the 26 cancel	s, 5 are leaving	the location 9 le	ert for other eas	ons and the oth	ner 11 were eith	ner were cancell	ea pecause of mi	ssed payments or	unknown reas	sons.				
	February:	Of the 30 cancel	c 2 moved 1 se	used 12 were to	ransferred 10 a	ther and the at	her 14 word oit	her cancolled by	cause of missed	payments or unkr	nown reasons			1	1	
	rebluary.	of the 39 cancer	5,2 moveu, 1 pa	luseu, 12 were ti	ansierreu, 10 c	ther and the ot	.iiei 14 weie eit	ilei canceneu bi	cause of filisseu	payments of unki	iowii reasons.					
	March:	Of the 35 cance	s 1 naused 5 v	vere too husy 7	moved 20 are	leaving the loca	ition and the ot	her 2 were canc	l elled because of i	missed payments	or unknown re	Pasons				
	IVIUI CII.	Of the 35 cancer	s, i paasca, s v	vere too busy, 7	moved, 20 are	leaving the loca	ition and the ot	Her 2 Were carre	Circu because or	misseu payments	or unknown i	2430113.				
		_														
	April:	Of the 31 cance	ls 2 naused 3 n	noved 7 are lea	ving the location	n and the other	9 are for other	reasons and the	additional 9 me	mebrs were cance	elled because o	l of missed navm	ent or			
	<u> </u>	unknown reasor		inovera, y are rea	ling the location		3 4.6 10. 01.16.	l casons and the	additional 5 me	linesis were carried	ca because (l mssea payn	iene o.			
			.5.													
		=														
	May:	- Of the 60 cancel	ls. 24 left the ar	ea. 4 were to bu	sv. 4 left for fin	ancial reasons.	1 purchased gv	m equipment. 3	were temporary	placed here, and	24 were cance	lled because o	f missed payme	ents or unknow	n reasons.	
]	,		,		,						, ,			
	June:	Membership au	dit completed v	vith Ashlee (MAS	SP) which is why	our membersh	hip total looks d	lifferent. Of the	56 cancels 16 left	for unkown reaso	ons, 12 left the	area, 3 left to	busy, 2 left for	financial reaso	ins,	
		2 left for health	reasons, 1 purc	hased equipmer	nt, 20 left for de	liquent reasons	5,									
	July:	Of the 53 cancel	s, 3 left due to	medical, 8 left d	ue to traveling f	for work, 8 were	e laid off, 6 mov	ved, 3 were too	busy, 1 had a dea	th in their family,	1 changed gyr	ns and 32 were	cancelled bed	ause of missed	payments or unki	nown reasor
	August:	Of the 33 cancel	s, 7 left the are	a, 1 moved, 1 le	ft for employen	t reasons, 14 le	ft for unknown	reasons and 10	were cancelled b	ecause of missed	payment or ur	nknown financi	al reasons.			
		*Please note tha	at August Elevat	tion Membershi	Fees were hig	her this month	due to the 3 an	d 6 month mem	bership specials							
	September	Of the 23 cance	s, 8 moved, 3 h	ave traveling pla	ns, 4 for financ	ial reasons, 2 w	ere too busy, 4	had work transf	ers and 2 cancell	ed because of unk	nown reasons					
		*Elevation learn	ed that Virgin C	Orbit filed for bar	nkruptcy and ur	nfortunately the	ey had an overd	ue balance of \$5	70. We removed	this from our inco	ome.					
		**We had a 96 l	nour pay period	this month whi	ch increased the	e Employee Sala	aries. Please no	te that our staffi	ng change will no	ot be reflected unt	til October.					
		-														
	<u>October</u>	Of the 28 cance	s, 5 had work ti	ransfers, 12 left	the Mojave loca	ation, 5 were to	o busy, 2 left fo	r emplyment re	asons, 1 one for o	commuting reason	ns and 3 were	cancelled due t	o unknown rea	asons.		
	November	Of the 30 cance	s, 8 had work ti	ransfers, 9 left th	ne Mojave locat	ion, 1 due to an	n injury, 3 due to	o financial reaso	ns, 2 left for com	muting reasons, a	nd 7 were car	celled because	of unknown re	easons.		
											-					
	December															



STAFF MEMORANDUM

TO: Board of Directors

FROM: Arielle Sewell, DOO

SUBJECT: DOO Report

MEETING DATE: January 3, 2024

1. 8 Minute Tower – Oak Creek

2. Testing Schedule, Universal Hydrogen test campaign

3. Enterprise Solar



CEO REPORT

TO: MASP Board of Directors

FROM: Tim Reid, General Manager/CEO

MEETING DATE: January 3, 2024

Updates

→ Taxiway A Electrical Rehabilitation – Mead & Hunt is drafting the final set of contract documents and conformed set of plans/specifications. MASP is anticipated to issue a Notice to Proceed in December 2023. However, due to lead times for electrical fixtures and materials, about 3 months out from time of order, the project schedule may be impacted by the delay. Staff will make all efforts to communicate the actual start date of the project and any impacts expected. The project is scheduled for 44 calendar days to complete.

- **→ Inland Port Update** No update.
- → Water Main System Update Anticipated start date late December or early January. The work is anticipated to take about 30 days, and the affected areas during this project will include traffic on Roper Street to be reduced to one lane of traffic. The Contractor will be responsible for traffic control, and Staff will advise tenants of the start date and impacts on traffic.
- → Water System Hydraulic Modeling Mead & Hunt has put together a plan to gather the outstanding water demand information from tenants, with completion of this task to be completed by the end of December.
- → Hangar Development Update Update to be provided February 2024.
- → Highlights:
 - California State University Bakersfield's Dean and staff toured the Airport on Wednesday, December 13th.
 - o 2nd Annual CHIPS Toy Drive last Saturday, December 16 at the Stu Witt Center.
 - o Met with Progress Rail, Cambium, and Stratolaunch to discuss development plans and future growth.
 - Met with Scaled Composites to discuss the possibility of accepting one of their Swift aircraft to put on display in front of the Airport.



CEO AUTHORIZED ITEMS

- Access License
 - Goodr Pop-Up Grocery Market 2 days

Authorized Payments

<u>Authorized Payments</u>				
BOARD MEETING: 1/3/2024	DATE	AMOUNT	EFT'S	TOTAL
CEO CHECK REGISTER	12/28/2023	103,044.44		103,044.44
				-
EFT'S	12/20/2023		286,654.37	286,654.37
			200,00	200,00
		103,044.44	286,654.37	389,698.81
BOD CHECK				
CHECK TOTAL		-		-
VOID CHECK				
		_		_
TOTAL ALL CHECKS & EFT'S				389,698.81

Time: CPANKO User:

Mojave Air & Space Port Check Register - Standard

Period: 06-24 As of: 12/28/2023

Page: Report: Company:

1 of 6 03630.rpt MASP

Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post Closed	Ref Nbr	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
Company:	MASI	P								
Acct / Sub: 064445	101000 CK	12/28/2023	1200 0002 Jordan Croft	06-24	055292	VO	JORDAN CROFT	12/19/2023	0.00	660.00
064446	СК	12/28/2023	0109 AT&T	06-24	055276	VO	23831139/1223	12/7/2023	0.00	120.97
064446	CK	12/28/2023	0109 AT&T	06-24	055277	VO	34122793/1223	12/7/2023	0.00	120.97
064447	СК	12/28/2023	0341 Circulating Air Inc.	06-24	055295	VO	7854	11/30/2023	Check Total 0.00	241.94 1,408.44
064448	СК	12/28/2023	0350 Clarks Pest Control	06-24	055345	VO	34485778/1223	12/19/2023	0.00	60.00
064448	СК	12/28/2023	0350 Clarks Pest Control	06-24	055346	VO	34485780/1223	12/19/2023	0.00	101.00
064448	CK	12/28/2023	0350 Clarks Pest Control	06-24	055347	VO	34485779/1223	12/19/2023	0.00	59.00
064448	CK	12/28/2023	0350 Clarks Pest Control	06-24	055352	VO	34485776/1223	12/19/2023	0.00	133.00
064449	СК	12/28/2023	0482 Michael Demetriff	06-24	055367	VO	122223	12/27/2023	Check Total 0.00	353.00 149.00
064450	СК	12/28/2023	0504 AlphaCard	06-24	055307	VO	INV7220659	12/18/2023	0.00	1,105.24
064451	СК	12/28/2023	0557 Amazon Capital Services, Inc.	06-24	055274	VO	1GR7LXJP9MJG	12/15/2023	0.00	60.48
064451	CK	12/28/2023	0557 Amazon Capital Services, Inc.	06-24	055275	VO	1D3KP6V917DY	12/14/2023	0.00	49.78
064451	CK	12/28/2023	0557 Amazon Capital Services, Inc.	06-24	055280	VO	1MFT3DFD7V4D	12/15/2023	0.00	54.11
064451	CK	12/28/2023	0557 Amazon Capital Services, Inc.	06-24	055290	VO	1FJ3W4RV7FXX	12/19/2023	0.00	36.37
064451	CK	12/28/2023	0557 Amazon Capital Services, Inc.	06-24	055291	VO	14JWQJGP7RT4	12/19/2023	0.00	138.34
064452	СК	12/28/2023	0615 Federal Express	06-24	055316	VO	834854810	12/15/2023	Check Total 0.00	339.08 34.05

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064453	СК	12/28/2023	0717 Geographic Data and	06-24	055296	VO	GD109705	12/11/2023	0.00	6,600.00
064454	CK	12/28/2023	0773 Grainger	06-24	055363	VO	9927489998	12/7/2023	0.00	375.89
064454	CK	12/28/2023	0773 Grainger	06-24	055372	VO	9933515679	12/13/2023	0.00	4,830.14
064455	СК	12/28/2023	0791 Handel Plumbing Incorporated	06-24	055317	VO	23-050	Check Tot 12/18/2023	0.00	5,206.03 5,808.00
064456	СК	12/28/2023	0791 Handel Plumbing Incorporated	06-24	055318	VO	23-051	12/18/2023	0.00	1,140.00
064457	СК	12/28/2023	0850 Herc Rentals	06-24	055310	VO	34232307-001	12/13/2023	0.00	3,238.57
064458	СК	12/28/2023	0866 The Home Depot Credit Plan	06-24	055282	VO	1123	11/29/2023	0.00	2,089.11
064459	CK	12/28/2023	1103 KERN COUNTY DEPT.	06-24	055298	VO	170711968	11/27/2023	0.00	26.42
064459	CK	12/28/2023	1103 KERN COUNTY DEPT.	06-24	055299	VO	170711898	11/27/2023	0.00	7.41
064459	CK	12/28/2023	1103 KERN COUNTY DEPT.	06-24	055312	VO	170712214	12/1/2023	0.00	1.85
064460	СК	12/28/2023	1138 Kern Machinery	06-24	055362	VO	104-1120786	Check Tot 12/20/2023	0.00	35.68 144.43
064461	СК	12/28/2023	1178 Kimley-Horn and Associates, Inc	06-24 c.	055283	VO	26594795	11/30/2023	0.00	13,000.00
064462	СК	12/28/2023	1289 Meridian Dental Arts	06-24	055315	VO	1223/BALENTINE	12/13/2023	0.00	539.00
064463	СК	12/28/2023	1390 Mission Linen Supply	06-24	055313	VO	520663708	12/14/2023	0.00	140.48
064463	CK	12/28/2023	1390 Mission Linen Supply	06-24	055314	VO	520663713	12/14/2023	0.00	117.12

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064463	CK	12/28/2023	1390 Mission Linen Supply	06-24	(055359	VO	520667069	12/21/2023	0.00	125.19
064463	CK	12/28/2023	1390 Mission Linen Supply	06-24	(055360	VO	520705260	12/21/2023	0.00	117.12
064463	CK	12/28/2023	1390 Mission Linen Supply	06-24	(055361	VO	520705255	12/21/2023	0.00	140.48
064464	СК	12/28/2023	1419 Nap Industrial Group	06-24	(055370	VO	024324	Check T 6/13/2023	'otal 0.00	640.39 141.78
064465	СК	12/28/2023	1436 Porter Concrete Construction	06-24	(055311	VO	4924	12/11/2023	0.00	11,156.00
064465	CK	12/28/2023	1436 Porter Concrete Construction	06-24	(055319	VO	4923	12/11/2023	0.00	300.00
064466	СК	12/28/2023	1461 Nat'l Air Transportation Assoc	06-24	(055349	VO	254165	Check T 10/11/2023	Total 0.00	11,456.00 1,490.00
064467	СК	12/28/2023	1501 Office Depot	06-24	(055371	VO	1223	12/17/2023	0.00	1,529.29
064468	СК	12/28/2023	1614 Kernprint Services	06-24	(055284	VO	51811	12/18/2023	0.00	514.29
064469	СК	12/28/2023	1639 ProActive Work Health Services	06-24	(055334	VO	86235	12/6/2023	0.00	35.00
064470	СК	12/28/2023	1670 Linde Gas & Equipment Inc.	06-24	(055344	VO	40136910	12/22/2023	0.00	189.99
064471	СК	12/28/2023	1695 Railworks Track Services LLC	06-24	(055300	VO	252504	12/15/2023	0.00	700.00
064471	СК	12/28/2023	1695 Railworks Track Services LLC	06-24	(055301	VO	252503	12/15/2023	0.00	700.00
064471	CK	12/28/2023	1695 Railworks Track Services LLC	06-24	(055302	VO	252505	12/15/2023	0.00	700.00
064472	СК	12/28/2023	1800 Ramos Strong Inc	06-24	(055279	VO	0395147	Check T 12/11/2023	Total 0.00	2,100.00 793.83

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064473	СК	12/28/2023	1865 RLH Fire Protection	06-24	055364	VO	10005794/180	12/27/2023	0.00	5,975.00
064474	CK	12/28/2023	1895 Smith Pipe & Supply	06-24	055309	VO	4099033	12/15/2023	0.00	3,031.00
064475	СК	12/28/2023	1896 Speedy Car Wash	06-24	055293	VO	5122	12/13/2023	0.00	160.00
064476	СК	12/28/2023	1925 Sparkletts	06-24	055348	VO	13703338122123	12/21/2023	0.00	1,504.72
064477	СК	12/28/2023	1928 Global ARFF Services	06-24	055285	VO	305-0000004937	11/30/2023	0.00	2,279.01
064477	CK	12/28/2023	1928 Global ARFF Services	06-24	055286	VO	305-0000004979	11/30/2023	0.00	4,293.01
064477	СК	12/28/2023	1928 Global ARFF Services	06-24	055287	VO	305-0000004982	11/30/2023	0.00	2,279.01
064478	СК	12/28/2023	1950 Society of Exp. Test Pilots	06-24	055273	VO	64642	Check 1/1/2023	Total 0.00	8,851.03 500.00
064479	СК	12/28/2023	1952 Southern California Edison	06-24	055288	VO	616545683/1123	12/15/2023	0.00	1,799.14
064479	CK	12/28/2023	1952 Southern California Edison	06-24	055289	VO	96090594/1123	12/15/2023	0.00	790.75
064480	СК	12/28/2023	1954 Southern California Gas	06-24	055303	VO	31545767/1223	Check 12/13/2023	T otal 0.00	2,589.89 259.29
064480	CK	12/28/2023	1954 Southern California Gas	06-24	055304	VO	89363938/1223	12/13/2023	0.00	514.51
064480	CK	12/28/2023	1954 Southern California Gas	06-24	055305	VO	11545997/1223	12/13/2023	0.00	694.53
064480	СК	12/28/2023	1954 Southern California Gas	06-24	055306	VO	61545001/1223	12/13/2023	0.00	965.92
064481	CK	12/28/2023	2041	06-24	055294	VO	15381	Check 11/30/2023	(Total 0.00	2,434.25 2,807.59
			South Street Digital, Inc.							
064481	CK	12/28/2023	2041 South Street Digital, Inc.	06-24	055308	VO	15375	12/15/2023	0.00	106.06
								Check	Total	2,913.65

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064482	CK	12/28/2023	2050 The Tire Store	06-24	055297	VO	178184	11/26/2023	0.00	75.00
064483	СК	12/28/2023	2086 Southern CA Edison Co.	06-24	055154	VO	7590524421	11/16/2023	0.00	367.83
064484	СК	12/28/2023	2136 UNUM Life Ins. Co.	06-24	055353	VO	010124	1/1/2024	0.00	3,392.50
064485	СК	12/28/2023	2193 Velosio LLC	06-24	055281	VO	IN100-00119278	12/12/2023	0.00	618.75
064485	CK	12/28/2023	2193 Velosio LLC	06-24	055368	VO	IN100-00120092	12/27/2023	0.00	470.00
064486	СК	12/28/2023	2230 Verizon Wireless	06-24	055369	VO	9951577144	Check 12/12/2023	Total 0.00	1,088.75 1,900.56
064487	СК	12/28/2023	2349 Florence Ann Kupsch	06-24	055373	VO	EMP 2372	12/28/2023	0.00	2,138.64
064488	СК	12/28/2023	2351 Thomas S. Kibler	06-24	055278	VO	121223	12/12/2023	0.00	805.00
064489	СК	12/28/2023	2367 Armando Quintero Jr.	06-24	055351	VO	120923	12/18/2023	0.00	249.33
064490	СК	12/28/2023	3030 Sonia Valenzuela	06-24	055366	VO	122323	12/27/2023	0.00	616.15
064491	СК	12/28/2023	3039 Adriana Huerta	06-24	055350	VO	121423	12/19/2023	0.00	1,500.00
064492	СК	12/28/2023	4008 Michael B.Jones DDS	06-24	055354	VO	120723/FLYNN	12/27/2023	0.00	560.00
064492	CK	12/28/2023	4008 Michael B.Jones DDS	06-24	055355	VO	120723/FLYNN	12/27/2023	0.00	149.00
064492	CK	12/28/2023	4008 Michael B.Jones DDS	06-24	055356	VO	120723/FLYNN	12/27/2023	0.00	306.00
064492	CK	12/28/2023	4008 Michael B.Jones DDS	06-24	055357	VO	120723/BUCK	12/27/2023	0.00	185.00

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Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Pe To Post	riod Closed	Ref Nbr	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
064492	CK	12/28/2023	4008 Michael B.Jones DDS	06-24		055358	VO	120223/L SMITH	12/27/2023	0.00	125.00
064493	СК	12/28/2023	4523 Gerardo Perez	06-24		055320	VO	101323	Check 12/20/2023	Total 0.00	1,325.00 268.00
064493	CK	12/28/2023	4523 Gerardo Perez	06-24		055321	VO	100623	12/20/2023	0.00	126.00
064493	CK	12/28/2023	4523 Gerardo Perez	06-24		055322	VO	110623	12/20/2023	0.00	125.00
064493	CK	12/28/2023	4523 Gerardo Perez	06-24		055323	VO	120623	12/20/2023	0.00	125.00
									Check	Total	644.00
Check Count:		49							Acct Sub Total:		103,044.44
			C	heck Type			Count	Amount Paid			
			R	Regular			49	103,044.44			
			H	land			0	0.00			
			E	lectronic Payr	nent		0	0.00			
			V	oid '			0	0.00			
			S	itub			0	0.00			
			Z	ero			0	0.00			
			N	1ask			0	0.00			
			Ť	otal:			49	103,044.44			

Company Disc Total

0.00

Company Total



AIR & SPACE PORT

AT RUTAN FIELD

Electronic Fund Transfers December 13, through December 20, 2023

Date		Amount
12/13/2023	ACH DEBIT ACH PMT AMEX EPAYMENT	\$14,900.09
12/13/2023	ACH DEBIT ACH PMT AMEX EPAYMENT	\$14,591.78
12/13/2023	ACH DEBIT 3100 CALPERS	\$12,467.28
12/13/2023	ACH DEBIT 3100 CALPERS	\$3,122.09
12/13/2023	ACH DEBIT CDTFA EPMT CA DEPT TAX FEE	\$698.00
12/13/2023	ACH DEBIT CDTFA EPMT CA DEPT TAX FEE	\$417.00
12/14/2023	ACH DEBIT 3100 CALPERS	\$12,095.01
12/14/2023	ACH DEBIT 3100 CALPERS	\$3,122.09
12/14/2023	ACH DEBIT INVESTMENT DSTRS	\$300.00
12/14/2023	ACH DEBIT INVESTMENT DSTRS	\$300.00
12/14/2023	ACH DEBIT INVESTMENT DSTRS	\$250.00
12/14/2023	ACH DEBIT INVESTMENT DSTRS	\$250.00
12/15/2023	ACH DEBIT EFTTRANSFE AVFUEL	\$33,986.61
12/18/2023	ACH DEBIT PAYABLES Mojave Air-Space	\$81,765.00
12/18/2023	ACH DEBIT PAYABLES Mojave Air-Space	\$40,826.00
	ACCOUNT SERVICE FEE ACH PER BATCH FEE X	
12/18/2023	2	\$10.00
12/19/2023	ACH DEBIT EFTTRANSFE AVFUEL	\$34,016.53
12/20/2023	ACH DEBIT EFTTRANSFE AVFUEL	\$33,340.03
12/20/2023	ACH DEBIT INVOICE PAYCHEX-OAB	\$181.86
12/20/2023	WIRE TRANSFER FEE	\$15.00
	Total	\$286,654.37