RS&H California, Inc.

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October 4, 2024

City of Merced
Engineering Division
Attention: Paul Flores
678 West 18th Street, Second Floor
Merced, CA 95340

RE: Merced-Yosemite Regional Airport Aviation Fuel Bulk Storage and Loading/Unloading Facility: RS&H Team Letter Proposal

Dear Mr. Flores,

RS&H California, Inc. (RS&H), is pleased to provide to you this letter proposal to provide design and bid phase services for a new Above Ground Storage Tank (AST) and fueling system and decommissioning/abandonment of the existing Underground Storage Tank (UST) and fueling system at Merced-Yosemite Regional Airport.

RS&H has teamed with Argus Consulting, Inc. for this work. Argus is the industry leader in aviation fueling system and is a frequent RS&H teammate for this type of work.

Argus will provide most of the requested services including Engineer of Record, and RS&H will support Argus's effort with a modest project management, quality control, environmental documentation, and coordination effort. RS&H and Argus will provide proposals for construction phase services once the design has progressed to the 90% design level, if requested by the City of Merced.

Our proposal includes the following sections:

Attachment 1 – RS&H provided Scope of Services (Design through Bidding)
Attachment 2 – Proposed Fee
Attachment 3 – Argus provided Design and Bid Phase Services
Attachment 4 – Argus Resumes
Attachment 5 – Argus Consulting, Inc. Overview and Experience

Note that these sections represent the entirety of our proposal, and all assumptions, exclusions, and limitations apply to all services provided.

Construction phase services, FAA coordination, FAA Form 7460, and Airport Layout Plan updates are not included in our proposal, but can be provided under an additional proposal and work order.

The RS&H Team is exceptionally well qualified to perform the requested services for MCE. We are eager to provide these services and are fully prepared to proceed with the work. Thank you for the opportunity to submit this proposal.

Sincerely,

Byron Chavez
Associate Vice President
RS&H California, Inc.

RS&H provided Scope of Services (Design through Bidding)

RS&H California, Inc. (RS&H) will act in its capacity as Merced-Yosemite Regional Airport's On-Call Planning, Engineering, and Environmental Consultant to contract with Argus Consulting, Inc. (Argus) for Argus to provide design and bid phase services for a new Above Ground Storage Tank (AST) and fueling system and decommissioning/abandonment of the existing Underground Storage Tank (UST) and fueling system at Merced-Yosemite Regional Airport. Argus will be the Engineer of Record and solely responsible for all aspects of the design and bid phase effort as set forth in Attachment 3 – Argus provided Design and Bid Phase Services. RS&H and Argus will provide proposals for construction phase services once the design has progressed to the 90% design level, if requested by the City of Merced. RS&H will provide the following non-technical services to facilitate the project for the Airport.

Task 1 - Project Management and Coordination

RS&H will make monthly progress reports to the City of Merced's project manager during the duration of the project. RS&H shall manage the project in a professional manner and will assign qualified individuals or subconsultants to the project. The monthly progress reports will include a written description of each task identified within the contracted scope of services as of the date of the progress report. The progress reports will also include a monthly invoice for professional services.

RS&H will participate in the following Design and Bid Phase meetings:

- Project Kick-off Meeting – Site Visit
- Monthly Client coordination meetings - Virtual
- Issued for Review (65%) Submittal – Owner Comments – Virtual
- Issued for Review (90%) Submittal – Owner Comments – Virtual
- Issued for Review (100%) Submittal – Virtual
- Pre-Bid Conference – Site Visit

  Total Design and Bid Phase Trips = 2

Additional site visits, beyond the aforementioned list, at the request of the City of Merced, will be on a time and materials basis and RS&H shall be compensated accordingly.

Task 2 - Additional Quality Control Review

RS&H shall conduct an in-house quality control review of Argus's 65% and 90% deliverables prior to submittal to the City of Merced. The elements include a high-level review of design

plans and specifications RS&H associates who are technical experts in civil, electrical mechanical, and structural engineering. RS&H will also review Argus's internal quality control efforts to assure quality reviews were undertaken.

Task 3 – Environmental NEPA CATEX and CEQA NOE

Because federal funding will be used, compliance with the National Environmental Policy Act (NEPA) is required. RS&H assumes that Section 743 documentation will not be required by the FAA prior to NEPA compliance, and the FAA will retain NEPA approval authority. Additionally, as a project or action proposed by a public agency in California, compliance with the California Environmental Quality Act (CEQA) is required. RS&H assumes that the appropriate level of NEPA documentation is a Documented Categorical Exclusion (CATEX) and the appropriate level of CEQA documentation is a Notice of Exemption (NOE).

Task 3.1 – NEPA CATEX

The scope of services for the Documented CATEX complies with Federal Aviation Administration (FAA) Order 1050.1F, Environmental Impacts: Policies and Procedures, and FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions.

RS&H shall identify the paragraph in Chapter 5 of FAA Order 1050.1F that most allows a Documented CATEX as the appropriate format for compliance with NEPA. In accordance with Section 5-2 of FAA Order 1050.1F, RS&H will examine the Proposed Project relative potential "extraordinary circumstances."

RS&H will prepare a draft Documented CATEX, based on the checklist in the Standard Operating Procedure (SOP) No. 5.1 adopted by the FAA on June 2, 2017. If the analysis shows that extraordinary circumstances with significant environmental effects would occur with the implementation of the Proposed Project, RS&H will notify MCE and the FAA that an Environmental Assessment (EA) will be required. If this occurs, a separate scope of services and fee proposal will be prepared for Airport review and approval. RS&H assumes that no resource-specific technical reports/studies will be required by the FAA.

Task 3.2 – CEQA NOE

The scope of services for the CEQA documentation complies with Public Resources Code 21000–21189 and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387).

RS&H will prepare a CEQA NOE form, for review and approval by MCE. As an existing facility, RS&H believes that an NOE is the appropriate level of documentation under Existing Facilities (Class 1). The environmental documentation will be prepared in conformance with the City's CEQA procedures and the CEQA Guidelines and will include supporting information based on

the Documented CATEX. RS&H will submit NOE to the City for filing with the County Clerk and the State Clearinghouse.

Merced-Yosemite Regional Airport
City of Merced
Attachment 2 - Project Cost Sumary

Fuel Facility

	Lump Sum	T&M	Total
RS&H Summary			
Task 1 - Design Project Management and Coordination	$12,788		
Task 2 - Additional Quality Control Review	$21,043		
Task 3 - Environmental NEPA CATEX	$10,857		
Subtotal Labor Costs	$44,687	$0	$44,687
Lump Sum Travel	$1,432		
T&M Travel		$0	
Subtotal Travel	$1,432	$0	$1,432
RS&H Total	$46,119	$0	$46,119
Argus Summary			
Argus Design Phase Lum Sum Fee	$251,450		
Argus Bid Phase T&M Fee		$25,825	
Argus Total	$251,450	$25,825	$277,275
Grand Total	**$297,569**	**$25,825**	**$323,394**

Merced-Yosemite Regional Airport
City of Merced
Attachment 2 - Project Cost

Fuel Facility

Labor Cost:

Staff:	B. Chavez	P. Leung	J. McMillin	D. Joslin	Senior	C. Smith	K. Bouler	A. Hsu	Total		
Labor Category:	Project Officer	Project Manager	Mechanical Eng.	Structural Eng.	Electrical Eng.	Admin	Sr. Env.	Env. Planner I	Hours	Lump Sum	T&M
Reimbursable Hourly Rate:	$408.10	$325.34	$280.42	$222.28	$320.34	$152.99	$247.36	$127.76			
Task 1 - Design Project Management and Coordination											
1.1 Project Management and Invoicing (7 months)	3	8	-	-	-	8	-	-			
1.2 Monthly Design Calls	3	7	-	-	-	-	-	-			
1.3 Design Site Vistis	4	8	-	-	-	-	-	-			
Total Task 1 - Design Project Management and Coordin	10	23	-	-	-	8	-	-	41	$12,788	
Task 2 - Additional Quality Control Review											
2.1 Quality Control Review of 65% Docs.	-	4	16	4	12		-	-			
2.2 Quality Control Review of 90% Docs.	-	4	16	4	12		-	-			
Total Task 2 - Additional Quality Control Review	-	8	32	8	24	-	-	-	72	$21,043	
Task 3 - Environmental NEPA CATEX											
3.1 NEPA Categorical Exclusion (CATEX)	-	-	-	-	-		12	48			
3.2 CEQA Notice of Exemption (CE)	-	-	-	-	-		4	6			
Total Task 3 - Environmental NEPA CATEX	-	-	-	-	-	-	16	54	70	$10,857	
Design and Bid Phase Total Hours	10	31	32	8	24	8	16	54	183		
Lump Sum Labor Cost	$4,081	$10,086	$8,973	$1,778	$7,688	$1,224	$3,958	$6,899		$44,687	n/a

Other Direct Non-Labor Costs:

Travel:				Airfare	Car	Lodging	Per Diem	Pkg			
	Trips	People	# Days	$500	$100	$200	$69	$25	Total		
Design Site Visit 1 - Project Kick Off	1	2	1	$500	$100	$0	$138	$25	$763		
Design Site Visit 2 - Pre-Bid Conference	1	1	1	$500	$100	$0	$69	$0	$669		
Subtotal Lump Sum Travel:										$1,432	n/a
Subconsultant Services:											
Argus Design Phase Lum Sum Fee										$251,450	n/a
Argus Bid Phase T&M Fee										n/a	$25,825
Total Direct Non-Labor Costs										$252,882	$25,825
Total Fee										$297,569	$25,825
Total Lump Sum and T&M Fee										$323,394	

Argus FUEL FORWARD
7900 College Blvd., Suite 200, Overland Park, KS 66210 / www.argusconsulting.com

October 3, 2024

Mr. Phillip Leung
Aviation Engineer
RS&H
5901 W. Century Blvd.,
Suite 1030
Los Angeles, CA 90045

RE: Proposal for Professional Engineering Services – DESIGN SERVICES
Merced Regional Airport (KMCE)
Merced, CA
New Aviation Fuel Bulk Storage and Loading/Unloading Facility
Argus Proposal No. 20221004 – REV 2

Dear Mr. Leung,

We appreciate the opportunity to provide this proposal for professional engineering services for the design/bidding phase for a new fuel storage and bulk loading/unloading system at Merced Regional Airport (KMCE) to better serve the aviation community and airport tenants. At Argus, we strive to be recognized as the trusted leader in the planning, engineering, and management of fuel handling systems. With over 30 years of experience in aviation fuel systems across the country and specialized expertise in civil, mechanical, electrical, controls, and environmental engineering, we can certainly add value to the future project.

This proposal is based upon our current understanding of the project and can be revised following further discussion or after the kickoff meeting. For the purpose of this proposal:

- Argus Consulting will be referred to as the "Engineer"
- The Airport or City will be referred to as the "Owner," and
- RS&H will be referred to as the "Client."

It has been assumed that the project will be primarily controlled by the Client, the Client is contracted with the Owner, Argus will be directly contracted with the Client, and all communication will follow that protocol.

OVERALL SCOPE OF THE PROJECT

We understand the Owner is interested in constructing a new fuel facility to replace their existing system(s). The following represents our understanding of the project scope.

A. The airport wishes to install a new aviation fuel "bulk" storage facility to support JET-A fuel. A similar system for other fuel types (AVGAS 100LL) is not a part of this scope.

B. For the anticipated fuel storage, one (1) 12,000-gallon JET-A tank is proposed. The tank will be double walled (UL-2085).

Typical Aboveground Storage Tank

C. The proposed facility shall utilize combined bulk loading/unloading/recirculation pump and filter skids which serve to unload the over-the-road (OTR) transport delivery trucks, load refueler vehicles and allow for recirculation of the system or tank-to-tank transfer in the event of multiple tanks.

D. The tanks will be configured to allow the transport delivery truck to deliver fuel directly into the tank. The new facility will be provided with an independent 400 gpm "bulk" loading/unloading and recirculation skid. At a minimum the skid will include a pump, filtration, static relaxation chamber, meter, flow computer, overfill prevention and grounding verification, loading hoses, control valve and other associated mechanical equipment. The skid will be used to off load transport delivery trucks, re-circulate fuel within the system to filter the fuel if desired, and to load refueler trucks.

Typical Bulk Loading, Unloading and Recirculation Skid

E. It is anticipated that the new fuel facility will be comprised of all aboveground equipment, infrastructure, and tanks. This reduces the need for additional environmental obstacles/operations and cathodic protection system costs.

F. The new tank and "bulk" loading/unloading skid will be placed on a curbed concrete containment pads which will provide for "general" containment of the piping as required by the EPA 40 CFR Part 112 SPCC regulations. The tanks themselves will be double walled, which provides for stand-alone secondary containment.

G. The bulk loading and unloading skid will be provided with a canopy to protect the equipment and operators from the elements.

H. The JET-A system will be provided with truck loading/unloading "sized" containment system to meet EPA 40 CFR Part 112 SPCC regulations. This will include a "drive-in" curbed containment pad, remote containment basin for impounding, underground containment piping and pump out capabilities. The refueler loading position can also serve as a contained parking position for the trucks when not in use.

Typical "Drive-In" Truck Containment Pad

Typical Remote Containment Pad

I. Provide electrical power and communications to the new system. It is assumed that sufficient electrical power (3-phase) is available at the airport and adjacent to the preferred location. Power supply to the proposed facility site will be designed and provided by Engineer but will require some coordination with the Client/Owner.

J. A new Emergency Fuel Shutoff (EFSO) system will be provided that typically trips all power to the new fuel system only when activated.

K. An automatic tank gauging and electronic monitoring system for liquid levels will be incorporated with outputs that can be observed from the adjacent electrical rack

L. New overhead lighting will be incorporated throughout the site and incorporated into the equipment canopies for the bulk loading/unloading, tank access platform, etc. Additional overhead site lighting will be provided by Engineer (if requested) to provide sufficient illumination of the tank area and loading/unloading operations.

M. It is assumed that no significant fire protection is required at the new tank facility, other than skid mounted fire extinguishers, and therefore additional fire protection aspects of the program is not anticipated.

N. A survey of the site will be completed by the Engineer or by subconsultant compensated by the Engineer. The Engineer is responsible for establishing or providing all property limits, overall property site topo features, architectural structures, survey control and benchmarks, etc. The survey shall provide an accurate representation of the proposed location as well as collection of

the topographic and elevation data. The survey generated background file(s) shall be converted for use in AutoCAD version 2020 or newer and provided by the Engineer. All visual utilities and surface features within the project area will be surveyed. The survey will be conducted and set up on a real world or arbitrary site-specific coordinate and elevation system.

O. It has been assumed that this project will be a stand-alone construction package and will not be combined with any other work, thus the construction drawings will be set up using the Engineer's CAD standards, borders, pen tables, etc.

P. The technical specification will be written and prepared by the Engineer and will cover all equipment and materials required for this project. All front end documents including the general conditions, special conditions, contract, bid forms, etc. will be prepared by the Owner. The Engineer will provide front end specifications for compliance submittals, RFI's and close-out submittals.

Q. Decommission and demolish the existing fuel facilities, including underground storage tanks, aboveground piping, equipment, infrastructure, and buildings.

SCOPE OF SERVICES

To simplify this project, we propose conducting professional engineering design services in the following breakdown, incorporated into our fee, and described in this section:

1. **Detailed Design**
2. **Bidding Support**

Detailed Design

After receiving written notice to proceed (NTP) from the Client, the Engineer will provide the following services:

A. Travel to and participate in a project kick-off meeting with various attendees from the Airport, Owner, Operator, Client, and any other necessary stakeholders. The primary purpose of this trip is to fully understand the scope of the project, familiarize ourselves with the airport and the existing facilities, start preliminary discussions regarding the overall design of the system, review available data and to define the project scope, schedule, and Owner requirements. The Engineer will prepare a list of key decisions and topics required to advance the fuel facility design.

B. Prepare a preliminary schematic layout plan of the proposed fuel storage facility for use in sighting the facility and preliminary approval from Authorities Having Jurisdiction (AHJ) including:

a. Owner(s)
b. Airport Staff
c. Fixed Based Operators
d. Fire Marshal

C. Prepare construction documents consisting of all drawings (100% complete) and technical specifications. The Engineer shall furnish draft design documents for review. Drawings, specifications will be prepared in conformance with Engineer standards and contract documents will be prepared in conformance with standards provided by the Owner.

D. The Engineer will provide complete detailed design of the proposed facility for the following disciplines:

- Civil Engineering
- Demolitions/Decommissioning
- Structural Engineering
- Mechanical Engineering
- Electrical Engineering
- Communications/Controls Engineering
- Environmental Engineering

E. The following represents the proposed drawing and specification list:

Preliminary Drawing List

1. COVER SHEET
2. LEGEND AND ABBREVIATIONS
3. GENERAL NOTES
4. EXISTING OVERALL SITE PLAN
5. DEMOLITION PLAN
6. OVERALL FUEL SITE PLAN
7. OVERALL GRADING PLAN
8. OVERALL PAVING PLAN
9. OVERALL FENCING PLANS
10. OVERALL SIGNAGE PLANS
11. CIVIL DETAIL SHEETS (typ. of 3)
12. CONTAINMENT SYSTEM PLANS
13. CONTAINMENT SYSTEM DETAILS
14. STRUCTURAL FOUNDATION PLAN
15. STRUCTURAL FOUNDATION SECTIONS AND DETAILS
16. MECHANICAL LEGEND AND ABBREVIATIONS
17. MECHANICAL FLOW DIAGRAMS
18. OVERALL MECHANICAL SITE PLAN
19. MECHANICAL PARTIAL PLANS
20. SKID SECTIONS AND ELEVATIONS
21. TANK SECTIONS AND ELEVATIONS
22. MECHANICAL DETAIL (typ. of 3)
23. MECHANICAL SIGNAGE
24. ELECTRICAL LEGEND AND ABBREVIATIONS
25. HAZARDOUS AREA PLAN
26. GROUNDING PLAN
27. OVERALL ELECTRICAL SITE PLAN
28. PARTIAL PLANS
29. ELECTRICAL DETAILS (typ. of 3)
30. WIRING DIAGRAM
31. ELECTRICAL SCHEDULES

Preliminary Specification List

1. COVER SHEET
2. TABLE OF CONTENTS
3. CERTIFICATION PAGE
4. REQUESTS FOR INTERPRETATION (RFI'S)
5. SUBMITTAL PROCEDURES
6. CLOSE-OUT SUBMITTALS
7. SITE PREPARATION AND EARTHWORK

8. CAST IN PLACE CONCRETE FOR STRUCTURES
9. FIELD MOLDED JOINT SEALANTS
10. FUEL SYSTEM COATINGS
11. FUEL SYSTEM ABOVEGROUND HORIZONTAL TANK(S)
12. FUEL SYSTEM SKID(S)
13. FUEL SYSTEM GENERAL PROVISIONS
14. FUEL SYSTEM INSTALLATION, TESTING AND FLUSHING
15. FUEL SYSTEM ELECTRICAL REQUIREMENTS
16. FUEL SYSTEM CONTROLS

F. Engineer shall furnish copies of the Construction Documents listed above and will be submitted to the Owner in the following packages:

   1) Issued for Review – 60%

   2) Issued for Review – 90%

   3) Issued for Construction – 100% (To be used for bidding and permitting)

G. Each submittal (60%, 90% and 100%) will include drawings, specifications, and supporting documents and forms. The 60% and 90% submittal will be intended for Client/Owner review and followed by a review meeting.

H. Make revisions to the Construction Documents as may be required after review by the Owner following the Issue for Review submittals. This will be accomplished in a one-time effort to incorporate any and all comments. Engineer shall furnish the Owner with copies of all revised documents.

I. Furnish an Engineers Estimate of Probable Cost based on the Drawings and Specifications

J. Prepare FAA Form 7460-1, Notice of Proposed Construction or Alteration, and supporting documents as necessary and submit to the FAA for approval. This will be for the fixed equipment and the contractor will prepare and submit secondary forms for construction means-and-methods.

K. This phase is to be considered a 100% design package.

<u>Bidding Support</u>

After receiving written notice to proceed (NTP) from the Client, the Engineer will provide the following services:

A. Pre-Bid Conference: Participate and conduct the pre-bid conference, with the accompaniment of the Client, Owner, Airport personnel, potential contractors, subcontractors, suppliers, etc. For the Engineer this meeting will be conducted in person. The Engineer shall prepare and distribute meeting agenda and minutes of the conference to all attendees.

B. Bidding Support: It has been assumed that the Owner/Client will provide the majority of the bidding services for the project, and the Engineers involvement will be minimal. However, the Engineer will provide the following:

   a) Review and respond to Contractor's technical questions during the bidding phase.

   b) Prepare Addendums as deemed necessary to address bidder questions, design changes, and permitting comments for distribution by others. It is anticipated that all questions, changes, and comments will be addressed in a single Addendum.

   c) Review bids from potential contractors, evaluate and provide observations and recommendations on bid award to the Client and Owner.

   d) For bidding support the Engineer has included 50 hours in the fee, and if this limit is met the Engineer and Owner must enter into negotiations for continuing these services.

Optional Scope of Services

These services have been provided by the Engineer on similar projects as requested by the respective Owner, however for this proposal have not been included. If any of these services are requested, additional fee and schedule will be necessary, via change order, prior to commencing the task.

A. Prepare a preliminary draft Spill Prevention, Control and Countermeasures (SPCC) plan. This assumes the new facility is a standalone facility and no other equipment, tanks, etc. are included. The SPCC plan will be revised, and a "final" copy will be provided once the new system is constructed, commissioned, and operational.

DELIVERABLES

The following deliverable will be made for each phase:

Detailed Design

A. Project kick-off meeting discussion topics (hard copy and electronic)
B. Copies of the design documents for each submittal package listed in Scope of Services section. (hard copy and electronic)
C. Engineers Estimate of Probable Cost (hard copy and electronic) for 90% and 100% submittal only.
D. FAA Form 7460-1 - Notice of Proposed Construction or Alteration Forms for 100% submittal only.

Bidding Support

A. Pre-Bid Conference agenda and meeting minutes (electronic)
B. Design document addendums, as needed (electronic)

ASSUMPTIONS

The following assumptions have been made with respect to the project and preparation of this proposal:

A. The primary designed system will have "bulk" fuel loading/unloading capabilities only. Pumping, filtration, etc. for dispensing directly into aircraft is not included at this time.
B. Any actual surveying necessary for this phase of the existing facility or proposed site(s) will be completed by the Engineer to allow development of CAD drawings and backgrounds for the project. It is proposed to use AutoCAD 2020 or earlier for the development of the drawings.
C. The proposed design of the overall system, tanks and skids will be based upon the Engineers General Aviation fueling standards.
D. The design of the tanks and skids will be based upon the Engineer's standards complying with International Fire Code, NFPA 407, NFPA 30, NEC and applicable state and local municipal building and fire codes. The applicable adopted fire code for this location and project has been identified as the International Fire Code, 2018 edition and California Fire Code, 2019 edition. Any Owner/Client driven variations to the Engineer's standards will result in additional fee and schedule.
E. No AVGAS 100LL, MOGAS, Diesel or other fuel types are anticipated for this project. The proposed system will NOT include overwing self-serve dispensing infrastructure, components, or operations.
F. All effort associated with obtaining final building and fire code permits will be the full responsibility of the awarded contractor. Permitting prep/assistance has not been included in this proposal.
G. Any design associated with water, sanitary, storm water and fire hydrants are excluded at this time. The design does not anticipate any major utility relocation.
H. Design for the proposed ingress/egress access drives will be a group effort between the Engineer and Client.

I. Since the construction area is anticipated to be less than one acre, a Storm Water Pollution Prevention Plan (SWPPP) for construction is not required and therefore the preparation of the construction SWPPP has not been included in the scope of work.

J. It is assumed the electrical service and transformer size is adequate to provide service to the new facility and in near proximity to the proposed location. If not, a new power service from origination to proposed site will be provided by the awarded contractor or through the local power supply utility company.

K. It is anticipated that there will be a need for geotechnical data or studies for the proposed site and that geotechnical services will be provided by the Engineer for this project.

L. The duplication and distribution of the construction contract documents to prospective bidders shall be by the Client or Owner.

M. It is assumed that no fire protection is required at the fuel facility beyond the provision of a skid mounted portable fire extinguisher(s).

N. The design does not include modifications or new construction of Airport perimeter/security fencing or barricades.

O. This project will not be phased in any sort or variation, and all work will be constructed in a single sequence by one awarded contractor.

P. The Client and/or Owner will advertise and obtain bids from potential contractors, prepare bid tabulation sheets, evaluate bids, and recommend bid award. These services can be provided by the Engineer, but for this proposal have not been included. A maximum of 50 hours has been included for bid support in the Scope of Services section of this proposal.

Q. The total number of meetings/site visits has been estimated in our fee as the following:

1) <u>Detailed Design</u>

- Project Kick-off Meeting – Site Visit
- Monthly Client coordination meetings
- Survey/Site Investigation/Geotech and Environmental Coordination – Site Visit
- Issued for Review (60%) Submittal – Owner Comments – Teleconference
- Issued for Review (90%) Submittal – Owner Comments – Teleconference
- Issued for Review (100%) Submittal – Owner Comments – Teleconference

2) <u>Bidding Support</u>

- Pre-Bid Conference – Site Visit

Total Trips = 3

R. Additional site visits, beyond the aforementioned list, at the request of the Owner or Client, will be on a time and materials basis and the Engineer shall be compensated accordingly.

S. The overall construction budget will be established and communicated, by the Client and/or Owner.

T. If available, the Owner will provide any and all as-built information for existing facilities and utilities which may be affected by this project.

U. All front-end documents including the contract, general conditions, special conditions, bid forms, etc. will be prepared and fully responsible by the Client and/or Owner.

V. Construction support services have not been included in the proposal. This includes compliance submittal review, RFI's, site inspections and construction oversight, commissioning and start-up, training, and as-built drawing preparation. A separate proposal will be created to capture these services.

PROGRAM SCHEDULE

For planning purposes, we offer the following preliminary schedule for proposed project and will be revised throughout the process.

NTP	Q4 of 2024
Detailed Design	4 Months
Bidding Support	1 Month (estimated)
Construction Admin/Awarding/Contracting/NTP	1 Months± (estimated)
Construction Support Services	9 Months± (estimated)
Estimated Design Phase	**5 Months**

FEE FOR SERVICES

Based upon the scope of the project and services previously stated, the following represents our fee for these professional services.

A. To accomplish each task of this project, Argus will provide the professional services stated in this proposal up to a maximum of 7 months from NTP. Assuming a NTP in the fourth quarter of 2024, the detailed design is anticipated to be performed in Q4 2024 and Q1 2025 and the bidding phase is anticipated to be performed in Q1 2024.

B. To accomplish this Work, Argus will provide all labor and expenses for the detailed design project on a Lump Sum (LS) basis, and all bidding services on a Time and Materials (T&M) basis. Should a change in scope or services be requested by the Client and/or Owner, the additional services can be provided either on a negotiated lump sum basis, or on a Time and Materials basis.

C. The following presents our (Argus) fee for the project:

Detailed Design (LS)	
Labor	$226,500
Direct Expenses	$2,950
Subconsultants	$22,000
Bidding Support (T&M)	
Labor	$24,400
Direct Expenses	$1,425
Total	**$277,275**

D. This proposal is valid for 90 calendar days.

Fuel system planning, design, construction, and management demand a high level of technical expertise due to their vast complexity, hazardous nature, environmental impacts and evolving technology and regulations. We are prepared to commit our experienced technical resources to your project upon your notification of award. Should you have any questions or want to discuss the scope of services in depth, please contact me at (816) 874-8236. We look forward to working with you on this project. Thanks again for the opportunity to provide our proposal for this work.

Sincerely,

Seth Newbold
Project Manager – West Region
Direct: 816-874-8255
snewbold@argusconsulting.com

Nate Spilker
Business Unit Director – West Region
Direct: 816-547-4088
nspilker@argusconsulting.com

Garrett Gjerstad, PE

Program Manager / Senior Civil Engineer

Mr. Gjerstad has more than 10 years of experience as a fueling systems infrastructure project manager and lead civil engineer in the design and construction administration of aviation fueling storage and distribution systems and aircraft ramp services for major commercial aviation hubs as well as regional general aviation airports.

EXPERIENCE

- 13 years with Argus
- 13 years total experience

EDUCATION

- Bachelor of Science, 2008, Civil Engineering, University of Missouri
- Master of Science, 2015, Engineering Management, University of Kansas

REGISTRATION

- MO /Lic. No. 2014000030
- OK/Lic. No 29492
- TX/Lic. No. 126351
- OR/Lic. No. 92320PE
- SC/Lic. No. 34804
- MN/Lic. No. 55344
- NM/Lic. No. 25451

Relevant Experience

KAPC Airport Fuel Facility Assessment and Upgrades Project, Napa County Airport, California
PROJECT MANAGER. The Napa County Airport Authorities has retained Argus for facility assessment, planning and design/bid/build services for improvements to the equipment and utilities for the existing fuel storage and refueler bulk loading facility at the municipal airport. Argus will perform Above Ground Storage Tanks (AST) assessments and an in-depth field examination of the existing infrastructure, provide detailed design and construction documents, bidding support and construction administration services.

KCID Fuel Farm, Eastern Iowa Airport, Cedar Rapids
SUPERVISOR. Argus has been retained for the planning and design for a new fuel storage, bulk loading/unloading. Argus has conducted the planning phase for the new fuel storage facility to replace the existing system as recommended in the Fuel Facility Assessment report, written by Argus, that will support the airport's storage needs for 30+ years, is code compliant, minimizes safety hazards, is environmentally sound, and user friendly for users and operators. It could include up to six aboveground storage tanks for Jet-A fuel and additional tanks for Avgas and Mogas, two separate bulk loading skids/islands and individual truck loading and unloading bays.

KCID Avgas Dispensing System, Eastern Iowa Airport, Cedar Rapids, IA
PROJECT MANAGER. Argus Consulting was retained for the design and construction of a new General Aviation Self-Service Fueling System at the Eastern Iowa Airport in Cedar Rapids, Iowa. The system includes one 12,000-gallon 100LL Avgas tank with separate self-serve dispensing skid positioned adjacent to the apron. The tank is configured to allow the installation of a 30 gpm overwing dispenser with credit card reader. The project also includes a new Emergency Fuel Shutoff (EFSO) system and automatic tank gauging signaled back to the fueling FBO at the airport. The overall system will support the airport's growing demand of Avgas 100LL fuel for its general aviation tenants and position the new facility for easy access and 24/7 availability.

KSEZ Fuel Farm Replacement, Sedona Airport, Arizona
PROJECT MANAGER. The airport is replacing its outdated JET-A and AVGAS 100LL system. The new system has two new 12,000 gallon double wall storage tanks, combined self-serve overwing dispensing skid (optional feature), the JET-A and AVGAS system will include "bulk" loading/unloading

skids with truck containment and supporting civil, mechanical, and electrical infrastructure.

KSVC JET-A Storage, Bulk Loading/Unloading, and Containment System, Grant County Airport, Hurley, New Mexico
PROJECT MANAGER. Argus has been retained for system and facility upgrades to the existing general aviation fuel system to better serve the aviation community and airport tenants. Argus is providing the site conceptual layout, detailed design, and bidding support for a new fuel storage tank and truck containment position.

HOU Fuel Storage Facilities and Pipeline Project, Houston William P. Hobby Airport, Texas
PROJECT MANAGER. Argus has been retained for comprehensive study, planning, design, construction support and resident engineering services for a significant expansion to bulk fuel storage capabilities at William P. Hobby International Airport (HOU). The project includes the construction of three new 40,000 barrel storage tanks, a new 8" cross-airfield pipeline, directly tying into the existing pipeline receipt from Magellan Midstream, new administration/controls/operations building, stand-alone fire suppression system, and demolition of select existing storage tanks in the East Tank Farm and associated infrastructure.

HOU FBO Fuel Farm, Houston Hobby Airport, Texas
PROJECT MANAGER. Argus provided design and construction support of a separate FBO general aviation fuel storage facility on the south side of the airport. Argus was responsible for designing the new fuel facility to serve the on-apron refueler loading operations for the new FBO facility.

DFW Terminal B Stinger Hydrant Loop, Dallas-Fort Worth International Airport, California
PROJECT MANAGER. American Airlines retained Argus for the installation of a new hydrant loop around the Stinger Building to provide hydrant system fueling and to add a new EFSO system at each gate and tie into the existing EFSO system. This project includes 11 new hydrant pits to serve regional jet aircraft and modifications of two existing gates, B27 and B28 with the addition of two hydrant pits.

DAL Hydrant System, Dallas Love Field Airport, Texas
CIVIL ENGINEER. Argus was retained for the design and construction oversight of a new fuel hydrant system for the 20-gate concourse at Dallas Love Field Airport. In a multi-phased implementation program, the new hydrant system included a looped piping system to maximize system flow rate capacity and mitigate system surge pressures.

BNA Fuel System Upgrades, Nashville International Airport, Tennessee
CIVIL ENGINEER. The Metropolitan Nashville Airport Authority (MNAA) retained Argus Consulting for planning, design, construction and resident engineering services. This project provided improvements to nearly all fuel system functions including pipeline receipt, truck unloading, fuel storage, hydrant fueling, tank-to-tank transfer and refueling loading. Additionally, the project covers modifications to the tank stripper system, site lighting, a storm/containment drainage system and installation of a 24/7 security system.

MSY New Fueling Systems, Louis Armstrong New Orleans International Airport, Louisiana
CIVIL ENGINEER. Argus Consulting provided planning, design, construction administration and resident engineering services for new Jet A fueling systems to support a new North Terminal. This program features a terminal ramp distribution system serving 35 increased fuel storage capacity and a new receipt system, a new transmission system as operational and life safety upgrades to the existing ASTs and the refueler load racks. The tank farm upgrade includes the addition of two 10,000 BBL ASTs, an inbound filtration station, a transfer pump/filtration station, Operations and Maintenance Building, tanker offload capability, and it is connected to the terminal by dual transmission lines directionally drilled beneath the runway. The program also included a hydrant cart test stand.

SMF Hydrant System for New Passenger Concourse, Sacramento International Airport, California
CIVIL ENGINEER. This project included the design and construction oversight of a new Aircraft Hydrant Fueling System serving a new 27 gate passenger concourse at SMF. The new hydrant system has a loop design configuration to provide optimum operation flexibility and hydraulic capacity while minimizing pipe size requirements. While the ramp pavement was replaced, a 14-inch fuel transmission line was extended from the hydrant loop to the existing fuel storage facility.

OAK Fuel Storage and Maintenance Facility, Oakland International Airport, California
CIVIL ENGINEER. Argus provided comprehensive design and construction oversight associated with the five-year complete renovation program of two side-by-side bulk fuel farms at OAK. The Argus design accommodated greater storage, addressed severe seismic concerns and maintained operation of the existing fuel system. This project was completed in three phases and included decommissioning and remediation of the existing bulk fuel storage facility, construction of a new office and administrative complex, hydrant cart test stand and other site improvements.

LAS Hydrant Fuel Loop - C Gates, Las Vegas McCarran International Airport, Nevada
CIVIL ENGINEER. This project included redesign of a 19-gate hydrant fuel system and 14” fuel supply mains and isolation valve vaults, including a system flushing plan.

LGA Aircraft Hydrant Fueling System Evaluation, LaGuardia Airport, New York
CIVIL ENGINEER. During the planning stages for a replacement to the Central Terminal Building at LaGuardia Airport, Argus Consulting was retained to determine if the design, installation and operation of a hydrant fueling system was a feasible alternative as the airport is currently served exclusively by refueler vehicles. This study required the determination of the peak simultaneous fueling demand, the potential routing of the fuel piping, and the completion of a hydraulic analysis to size the piping.

LAX Terminal 4 Hydrant System Expansion, Los Angeles International Airport, California
CIVIL ENGINEER. A significant component of this program included extensive modifications of the two 12-inch fuel headers that supply jet fuel to all of the aircraft gate positions. Additionally, due to the dramatic change in the building shape and exterior walls and a change in the mix of aircraft operating out of T-4, new hydrant fueling pits, isolation vaults and emergency fuel shut-off systems were installed.

LAS Fueling System Phase II - Owner's Representative, Las Vegas McCarran International Airport, Nevada
CIVIL ENGINER. Argus Consulting serves as the Owner's Representative for Phase II of a two-year, $35 million project that includes engineering oversight/tracking/monitoring of the construction process and progress, environmental work & tracking financials for the new Truck Loading Facility and the demolition of half of the existing Tank Facility. This project also includes writing specifications, scheduling, overseeing and reviewing data as well as performing verification digs from Smart Tooling or ILI pig runs on 16” pipelines. This project will complete construction of containment and 3-110,000 bbl tanks, supporting pipe and delivery and 4- 1200 GPM transfer pump to support the tanks and jet fuel delivery system.

ORD Fuel System Improvement Program (FSIP) Master Engineer, Chicago O'Hare International Airport, Illinois
CIVIL ENGINEER. Argus Consulting has been retained to provide technical oversight and advice during design, construction and commissioning of a new state-of-the-art fuel system which intends to rehabilitate and improve the aircraft fueling system as defined in the Fueling Master Plan.

ORD Terminal 2 Hydrant System Modifications, Chicago O'Hare International Airport, Illinois

CIVIL ENGINEER. Argus Consulting was retained by United Airlines to design, prepare bid documents and support construction for hydrant fueling system modifications at Terminal 2 Concourse F to accommodate the current fleet of regional jets as well as larger aircraft projected for future gate use. The new aircraft hydrant fueling system ties into an existing concrete isolation vault, and a new concrete isolation valve vault for manual isolation and flushing purposes was installed along with new hydrant piping.

SEA International Terminal Hydrant Modifications, Seattle-Tacoma International Airport, Washington
PROJECT MANAGER. Argus Consulting was retained for planning, design and construction administration of hydrant fuel system modifications and EFSO system modifications at SEA as part of the International Arrivals Facility (IAF) modifications project. Argus began with an evaluation of all existing international gates at the South Satellite and Concourse A. Argus developed schematic design, conceptual design, detailed design and construction drawings, including partial plans and details based upon the proposed hydrant fuel system modifications and EFSO system modifications.

PHX Terminal 3 Modernization, Phoenix Sky Harbor International Airport, Arizona
CIVIL ENGINEER. Argus provided specialized mechanical and electrical fueling engineering planning, design and construction administration services for a new aircraft hydrant fueling system capable of serving a total of 15 gate positions at a new South Concourse building in the T3 Modernization project. The designs included hydraulic analysis of the existing fuel system, location of tie-in points, all new aircraft hydrant system piping, vaults, fueling pits, cathodic protection systems and a new Emergency Fuel Shut-Off (EFSO) system.

JFK Delta Airlines and International Arrivals Terminal T2, T3, T4 Redevelopment, John F. Kennedy International Airport, New York
CONSTRUCTION ADMINISTRATION CIVIL ENGINEER. Argus provided engineering services to Delta Air Lines for a large and complicated redevelopment project. The initial conceptual scope of work included phased and coordinated integration of fuel pumping systems, relocation of underground system piping, modification and additions to existing Emergency Fuel Shut-Off (EFSO) systems, a new PLC-based control package for the pumping systems, abandonment of the old fuel lines in accordance with regulatory requirements, and related design tasks.

TUS Hydrant System and Ground Power System Upgrades, Tucson International Airport, Arizona
CIVIL ENGINEER. Argus Consulting was retained to plan, design and provide construction follow-on services for badly-needed improvements to the hydrant fueling system and the ground power system that were integrated into a two-year, $42 million airport apron reconstruction and repaving project at the Tucson International Airport. The hydrant fueling system at both the A and B concourses needed adjustments to bring it up to current codes, and the isolation pits needed upgrades and relocation. Argus also designed and constructed a single-position truck rack on the airside of the tank farm fence to support construction efforts.

KBMT Dual Product Dispenser, Beaumont Municipal Airport, Beaumont, Texas
PROJECT MANAGER. Argus provided the design and construction follow-on services of a new dual product dispensing skid for both Avgas and Jet-A at the Beaumont Municipal Airport to replace the existing Avgas self-service dispenser at a new location approximately 500 feet west of the existing fuel storage tanks. The design included a new double-wall flexible underground piping system and new transition sumps replacing single-wall aboveground steel piping with double-wall underground piping. The project also included the demolition of the existing dispenser.

GVT Fuel Storage and Dispensing Facility, Greenville Municipal Airport, Greenville, TX

PROJECT MANAGER. Argus was retained for the design and construction of a new Avgas 100LL aboveground fuel facility to include tank storage and over-wing, self-service dispenser(s). The new facility included a 6,000-gallon double-wall fuel storage tank (UL-2085) with a 30 gpm over-wing dispenser with credit card reader and large format display for pilots to purchase fuel 24 hours a day. Argus also composed a Spill Prevention, Control and Countermeasures Plan for the new fuel storage facility.

KLNC Fuel Storage and Self-Service Dispenser, Lancaster Municipal Airport, Lancaster, Texas
PROJECT MANAGER. Lancaster Regional Airport, located southeast of Lancaster, Texas, installed a new 12,000-gallon aboveground Avgas tank with self-serve dispenser skid. This supplemented the existing fuel storage facility located elsewhere on the airport property. Argus Consulting designed the new system that included a 12,000-gallon double wall UL2085 tank with a separate 30 gpm over-wing, self-serve dispensing skid.

KLHB Fuel System Design, Hearne Municipal Airport, Hearne, Texas
CIVIL ENGINEER. Argus Consulting designed a replacement fuel system for the existing aboveground Avgas fuel storage tank and dispenser at the Hearne Municipal Airport, located west of Hearne, Texas. The new system replaced the 12,000-gallon tank with an aboveground fuel storage gallon tank system that features a 30 gpm over-wing dispenser with a new 8,000-gallon aboveground fuel storage tank system, and a connection for the transport delivery driver to pump fuel off directly using the PTO driven pump on the delivery truck.

2R9 Fuel Storage Facility, Karnes County Airport, Texas
PROJECT MANAGER. Argus Consulting designed a new fuel storage facility with a 12,000-gallon aboveground Avgas tank and a new 12,000-gallon aboveground Jet-A tank with self-serve dispenser for the Karnes County Airport, located northeast of Kenedy, Texas. This project was in association with a large apron and taxi way re-construction project currently being designed by Garver. This included two (2) 12,000-gallon double wall UL 2085 tanks with a combined product (Avgas and Jet-A) 30 gpm over-wing, self-serve dispensing skid placed at the designated refueling location on the apron.

KDKR Fuel Storage and Self-Service Dispenser, Houston County Regional Airport, Crockett, Texas
CIVIL ENGINEER. Houston County Airport, located east of Crockett, Texas, replaced its existing underground Avgas fuel storage tank and dispenser with a new aboveground fuel storage tank system. Argus Consulting designed the new system that includes a 6,000-gallon double wall UL142 tank with a dispenser located at one end of the tank.

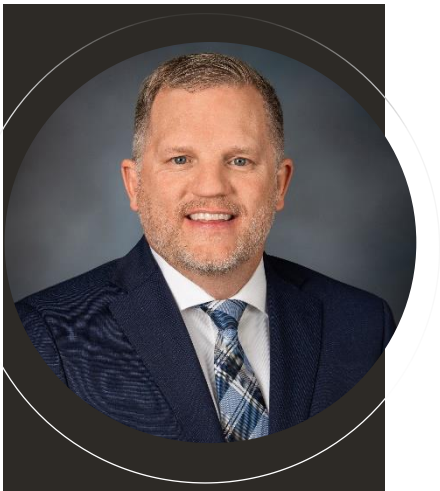
6R3 Avgas Self-Service Tank and Dispenser, Cleveland Municipal Airport, Cleveland, Texas
CIVIL ENGINEER. Argus was retained by TXDOT and the City of Cleveland, Texas, to design a new self-service Avgas storage and dispensing system to replace the existing underground fuel storage and dispensing system. The new system included a 6,000-gallon double wall Avgas tank with an integral dispensing skid located on the end of the tank. A separate pad included the credit card reader. The system incorporated all the standards designed into the TXDOT standards including stainless steel piping, a sloping tank with water draw-off, internal epoxy lined tank, and floating suction.

KVCT General Aviation Fuel Storage Facility, Victoria Regional Airport, Victoria, Texas
CIVIL ENGINEER. Argus provided the design of the bulk aviation fuel facility and Avgas self-service facility. This project included a 20,000-gallon Jet-A tank and a 12,000-gallon Avgas tank. Both were equipped with bulk loading and unloading skids. The Avgas system was also provided with a self-service dispenser.

KEBG Fuel Storage Tank Design, South Texas International Airport, Texas

CIVIL ENGINEER. South Texas International Airport, located north of Edinburg, Texas, replaced their existing underground Avgas and Jet-A fuel storage tanks with a new Bulk Fuel Storage and Dispensing Facility. Argus Consulting designed the two tank and skid systems.

KCAE New Rental Car Facility Fueling System, Columbia Metropolitan Airport, South Carolina
PROJECT MANAGER. Argus Consulting was retained for planning, design, bidding and construction administration for a new fuel system at the rental car facilities supporting Columbia Metropolitan Airport. In 2017, Argus conducted an analysis of the existing fueling system and provided a feasibility study. The Airport has decided to move forward with removing and replacing the underground storage tanks (UST's) with aboveground storage tanks (ASTs) along with supporting infrastructure at the five rental car facilities. The modifications include decommissioning and removing all five (5) 12,000-gallon UST's and replace with a similar AST system at each location; over the road (OTR) truck unloading, system pumping/filtration, and supporting equipment.



Dan Frank, P.E., P.Eng.

Vice President of Engineering / Mechanical Engineer

Mr. Frank has served in the role of project manager, project design engineer, and resident engineer for the design and installation of numerous aircraft fueling systems and fuel storage facilities since beginning his professional career. As a licensed pilot, he was proud to lead the development of General Aviation Fueling Standards for TXDOT to use at the nearly 300 Community Airports across Texas. Mr. Frank is a member of the NFPA 407 Technical Committee.

EXPERIENCE

- 22 years with Argus
- 29 years total experience

EDUCATION

- Bachelor of Science, 1992, Mechanical Engineering, University of Missouri

REGISTRATION

- MO, Lic. No. 2000150017
- CO, Lic. No. 0054660
- AK, Lic. No. 12883
- DE, Lic. No. 21767
- HI, Lic. No. 17805
- IA, Lic. No. 23897
- ID, Lic. No. 14062
- KS, Lic. No. 25495
- MD, Lic. No. 52423
- MI, Lic. No. 6201061896
- MN, Lic. 55309
- NE, Lic. No. E-16806
- NM, Lic. No. 24311
- NY, Lic. No. 86773
- OH, Lic. No. 82688
- OK, Lic. No. 29724
- SC, Lic. No. 34806
- TX, Lic. No. 103958
- UT, Lic. No. 8710544-2202
- WA, Lic. No. 49073
- AB, Lic. No. M148118
- BC, Lic. No. 166408
- YT, Lic. No. 2102

Relevant Experience

PMGAA Fuel Storage Facility Expansion, Phoenix Mesa Gateway Airport, Arizona
PROJECT MANAGER. Argus Consulting, working as a subconsultant to Dibble, provided the mechanical and electrical design for two new 50,000 gallon aboveground double wall Jet-A fuel storage tanks. This project increased their current storage from 150,000 gallons to 250,000 gallons of fuel. Existing piping was extended to serve the two new tanks as well as proposed modifications to the truck loading racks to include a return to bulk connection. Modifications were also made to the existing controls system to incorporate the two new tanks as well as replacement of the tank gauging system. Actuators on the existing tank inlet and outlet valves were modified to include manual handwheels to allow manual operation of the fuel farm.

Airport Fuel Delivery System Design, Vancouver International Fuel Facilities Corporation, Canada
PROJECT MANAGER. Argus Consulting provided design and consulting services for the Vancouver Airport Fuel Delivery Project (VAFDP), which features a new marine terminal and fuel receiving facilities for the Vancouver Airport Fuel Facilities Corporation. The VAFDP is divided into four major components: the marine terminal and ship offloading system, the new jet-fuel receiving facility, the underground delivery pipeline to the existing tank farm at YVR, and upgrades to that existing tank farm.

Fuel Depot Design/Build, YOC Old Crow Airport, Yukon, Canada
PROJECT MANAGER. Argus was retained to design and build a centralized fuel depot for the residents of Old Crow, a community of 167 people located in Canada's northern Yukon that is only accessible via aircraft. The community's new centralized fuel depot at the Old Crow Airport featured 16 total tanks, five separate unloading systems, one bulk-loading system, and four dispensing systems for heating oil, low-sulfur diesel, unleaded gasoline, Avgas and Jet-A fuel. The new equipment was designed to be transported via C-130 Hercules aircraft, and was skid-mounted for easy installation and mobility. Heated enclosures were built to tolerate extreme weather conditions and to be explosion proof.

LGA Tank Farm and Transmission Main Program Management, LaGuardia Airport, New York
LEAD MECHANICAL ENGINEER. Argus Consulting provided program management and concept design services for the necessary infrastructure improvements to provide hydrant fueling for Terminals B, C and D at LaGuardia Airport. The project included increasing the size of the airport's tank farm, modifications to the pump pad and construction of transmission lines from the tank farm to the airfield. Argus provided project management, planning, alternative evaluation, conceptual design, scheduling and cost estimating for the design of the aviation fuel distribution system.

HOU Fuel Storage Facilities and Pipeline Project, Houston William P. Hobby Airport, Texas
QA/QC MANAGER. Argus Consulting is providing design, construction and resident engineering for new mechanical and electrical infrastructure and site layout modifications to the HOU West Tank Farm. The project consists of constructing three 40,000 bbl. vertical aboveground storage tanks, a new eight-inch cross-airfield pipeline to allow for a direct feed into the main fuel terminal. The project will maintain continuous receipt and issue of fuel to the terminal, incorporate new equipment and technology to existing outdated infrastructure, and use sophisticated phasing to not interrupt airport operations. Mr. Frank is QA/QC Manager for this project.

JFK Tank Farm Expansion, John F. Kennedy International Airport, New York
QA/QC MANAGER. Argus was retained by the JFK Fuel Infrastructure, LLC, a consortium of Delta, American and JetBlue Airlines, to provide design, construction administration and resident engineering services for two new 80,000 BBL aboveground fuel storage tanks to supplement the capacity of the Airport's existing Bulk Fuel Storage Farm. This project was the first phase in the modernization of the JFK fuel system as defined in the JFK master plan. The project included the new tanks and their steel containment, the relocation and addition of new roads, a foam fire protection system to serve these two tanks as well as three additional future tanks, and a state-of-the-art tank gauging system.

DFW Aircraft Hardstand Ramp Expansion, Dallas-Fort Worth International Airport, Texas
SENIOR MECHANICAL ENGINEER. Argus Consulting was retained to design hydrant fueling to the new hardstand positions as DFW expands its airfield ramp pavement off the southwest corner of existing Terminal D South Ramp to connect with the existing General Aviation ramp. The ramp expansion will accommodate six wide body or 10 narrow body aircraft and provide provisions to facilitate future installation of a complete hydrant system for the future Terminal F.

KEBG Fuel Storage Tank Design, South Texas International Airport, Texas
PROJECT MANAGER. South Texas International Airport, located north of Edinburg, Texas, replaced the existing underground Avgas and Jet-A fuel storage tanks with bulk loading capabilities and dispensing capabilities, with a new Bulk Fuel Storage and Dispensing Facility. Argus Consulting designed the two tank and skid systems.

KCXO Bulk Fuel Facility, Lonestar Executive Airport, Conroe, Texas
PROJECT MANAGER. Mr. Frank served as the project manager and lead mechanical engineer for the design of the bulk aviation fuel facility for a private fixed based operator. This project included a 20,000-gallon Jet-A tank and a 12,000-gallon Avgas tank. Both were equipped with bulk loading and unloading skids. Mr. Frank also provided construction support services and periodic site inspections.

KLHB Fuel System Design, Hearne Municipal Airport, Hearne, Texas
PROJECT MANAGER. Argus Consulting designed a replacement fuel system for the existing aboveground Avgas fuel storage tank and dispenser at the Hearne Municipal Airport, located west of Hearne, Texas. The new system replaces the 12,000-gallon tank with an aboveground fuel storage gallon tank system that features a 30

gpm over-wing dispenser with a new 8,000-gallon aboveground fuel storage tank system, and a connection for the transport delivery driver to pump fuel off directly using the PTO driven pump on the delivery truck. Mr. Frank served as the project manager and lead mechanical engineer. He also provided construction support services and periodic site inspections.

76F Avgas Storage Facility, Van Zandt County Regional Airport, Wills Point, Texas
PROJECT MANAGER. Mr. Frank served as the project manager and lead mechanical engineer for the design of the self-service Avgas storage facility. This project included a 6,000-gallon Avgas tank with a self-service dispenser. He also provided construction support services and periodic site inspections.

KLNC Fuel Storage and Self-Service Dispenser, Lancaster Municipal Airport, Lancaster, Texas
PROJECT MANAGER. Lancaster Regional Airport, located southeast of Lancaster, Texas, installed a new 12,000-gallon aboveground Avgas tank with self-serve dispenser skid. This supplemented the existing fuel storage facility located elsewhere on the airport property. Argus Consulting designed the new system that included a 12,000-gallon double wall UL2085 tank with a separate 30 gpm over-wing, self-serve dispensing skid. Mr. Frank served as the project manager and lead mechanical engineer for the design of the self-service Avgas storage facility. He also provided construction support services and periodic site inspections.

KDKR Fuel Storage and Self-Service Dispenser, Houston County Regional Airport, Crockett, Texas
PROJECT MANAGER. Houston County Airport, located east of Crockett, Texas, replaced its existing underground Avgas fuel storage tank and dispenser with a new 6,000-gallon aboveground fuel storage tank system. Argus Consulting designed the new system that includes a 6,000-gallon double wall UL142 tank with a dispenser located at one end of the tank. Mr. Frank served as the project manager and lead mechanical engineer for the design of the self-service Avgas storage facility. This project included a 6,000-gallon Avgas tank with a self-service dispenser. He also provided construction support services and periodic site inspections.

6R3 Avgas Self-Service Tank and Dispenser, Cleveland Municipal Airport, Cleveland, Texas
PROJECT MANAGER. Argus was retained by TXDOT and the City of Cleveland, Texas, to design a new self-service Avgas storage and dispensing system to replace the existing underground fuel storage and dispensing system. The new system included a 6,000-gallon, double wall Avgas tank with an integral dispensing skid located on the end of the tank. A separate pad included the credit card reader. The system incorporated all the standards designed into the TXDOT standards including stainless steel piping, a sloping tank with water draw-off, internal epoxy lined tank, and floating suction. Mr. Frank served as the project manager and lead mechanical engineer.

KVCT General Aviation Fuel Storage Facility, Victoria Regional Airport, Victoria, Texas
PROJECT MANAGER. Argus provided the design of the bulk aviation fuel facility and Avgas self-service facility. This project included a 20,000-gallon Jet-A tank and a 12,000-gallon Avgas tank. Both were equipped with bulk loading and unloading skids. The Avgas system was also provided with a self-service dispenser. Mr. Frank served as the project manager and lead mechanical engineer. Mr. Frank also provided construction support services and periodic site inspections.

KRQO New Avgas and Jet-A Fuel Storage and Dispensing Facility, El Reno Regional Airport, Oklahoma
PRINCIPAL-IN-CHARGE. Argus prepared 95% design for a proposed 12,000-gallon Avgas fuel storage tank and 12,000-gallon Jet-A fuel storage tank with 30 gpm over-wing, self-service combined product dispensing skid at the El Reno Regional Airport in El Reno, Oklahoma. This project was in association with apron pavement removal along with removal of the existing underground fuel storage facility. Mr. Frank was Principal-in-Charge.

KLRU Bulk Fuel Storage Facility, KLRU Las Cruces Airport, New Mexico
PROJECT MANAGER. Argus provided design and construction observation for the rehabilitation of the fuel farm at the Las Cruces International Airport. This included removing the existing fuel storage tanks and installing a new aboveground fuel storage facility with two new 12,000-gallon storage tanks - one for Jet-A and the other for Avgas. Both tanks were equipped with truck unloading and loading equipment skids, associated piping, and required containment. The new facility was constructed in an area immediately adjacent to the existing fuel storage tanks. Once the new facility was operational, the existing facility was demolished. The tanks and skids were verified prior to leaving the fabricator (Garsite). Intermediate construction and startup and commissioning site visits were done. Mr. Frank served as the lead mechanical engineer. Mr. Frank also provided construction support services and periodic site inspections.

Seth Newbold, P.E.

Project Manager / Electrical Engineer

Mr. Newbold has extensive experience performing electrical engineering design and project management for hydrant fueling systems and Emergency Shut-Off Systems (EFSO) for fueling facilities serving domestic and international commercial and general aviation airports, U.S. Department of Defense installations and one of North America's premier railways.

EXPERIENCE

- 8 years with Argus
- 8 years total experience

EDUCATION

- Bachelor of Science, 2013, Mechanical Engineering, University of Missouri

REGISTRATION

- TX/Lic. No. 56444
- MO/Lic. No. 2018000250

Relevant Experience

DFW Truck Load Rack, DFW Airport, Dallas-Fort Worth International Airport, Texas
PROJECT MANAGER. Argus was retained for design and construction support for replacement of a jet refueler load rack at DFW. The project consisted of demolishing the existing jet fuel refueler loading facility that is directly north of Terminal A at DFW airport and replacing it with a new jet fuel refueler load rack facility with refueler parking and associated equipment, appurtenances and infrastructure including, two new fuel loading islands, light poles, an electrical service rack, and fuel quality testing building. Demolition activities included demolishing existing concrete pavement, existing fuel load rack infrastructure and appurtenances, demolishing and removing existing utilities and light poles. New construction included the installation of new concrete pavement, a containment drainage system including a new oil/water separator, installation of a relocated prefabricated building, connection to existing underground fuel piping, the installation of two new jet fuel system skids and associated equipment, emergency fuel shut-off system infrastructure, and associated new utilities to service the new facility.

KAPC Airport Fuel Facility Assessment and Upgrades Project, Napa County Airport, California
ELECTRICAL ENGINEERING. The Napa County Airport Authorities have retained Argus for facility assessment, planning and design/bid/build services for improvements to the equipment and utilities for the existing fuel storage and refueler bulk loading facility at the municipal airport. Argus is providing Above Ground Storage Tanks (AST) assessments and an in-depth field examination of the existing infrastructure, detailed design and construction documents, bidding support and construction administration services.

KRBO Avgas and Jet A Storage and Dispensing Facility, Nueces County Airport, Robstown, Texas
PROJECT MANAGER. Argus Consulting provided design and construction administration services for a new fuel storage and dispensing system at the Nueces County Airport. The project includes demolishing the existing general aviation fuel system. The new facility will include double wall fuel storage tanks (UL-2085) with self-service over-wing fuel dispensing skid. The tank will be piped aboveground to the dispensing skid. The system upgrades include

adding fuel storage capacity for the AVGAS 100LL and JET-A fuel. The new tanks will be configured to allow the transport delivery truck to deliver fuel directly into the tank.

KTCC Fuel Storage, Bulk Loading/Unloading and Dispensing System, Tucumcari Municipal Airport, New Mexico
PROJECT MANAGER. Argus has been retained for design and construction support for a new fuel storage, bulk loading/unloading and dispensing system at Tucumcari Municipal Airport (KTCC). The system will include adding fuel storage capacity for the JET-A and AVGAS 100LL fuel. The new JET-A tank will be configured to allow the transport delivery truck to deliver fuel directly into the tank.

BNA Fuel System Upgrades, Nashville International Airport, Tennessee
ELECTRICAL ENGINEER. The Metropolitan Nashville Airport Authority (MNAA) retained Argus Consulting for planning, design, construction and resident engineering services to upgrade the airport fueling facilities that were constructed in the 1980s. The resulting BNA Fuel System Repairs project provided improvements to nearly all fuel system functions including pipeline receipt, truck unloading, fuel storage, hydrant fueling, tank-to-tank transfer and refueling loading. Additionally, the project covered modifications to the tank stripper system, site lighting, a storm/containment drainage system and installation of a 24/7 security system.

KSVC JET-A Storage, Bulk Loading/Unloading, and Containment System, Grant County Airport, Hurley, New Mexico
ELECTRICAL ENGINEER. Argus has been retained for system and facility upgrades to the existing general aviation fuel system to better serve the aviation community and airport tenants. Argus is providing the site conceptual layout, detailed design, and bidding support for a new fuel storage tank and truck containment position. The new tank will be configured to allow the transport delivery truck to deliver fuel directly into the tank. The tank will be provided with an independent 200 gpm truck loading/unloading and recirculation skid. At a minimum each skid will include a pump, filtration, static relaxation chamber, meter, flow computer, overfill prevention and grounding verification, loading hoses, control valve and other associated mechanical equipment. This skid will be used to off load transport delivery trucks, re-circulate fuel within the system to filter the fuel if desired, and to load refueler trucks

KSEZ Fuel Farm Replacement, Sedona Airport, Arizona
ELECTRICAL ENGINEER. The airport is replacing its outdated JET-A and AVGAS 100LL system. The new system has two new 12,000 gallon double wall storage tanks, combined self-serve over-wing dispensing skid (optional feature), the JET-A and AVGAS system will include "bulk" loading/unloading skids with truck containment and supporting civil, mechanical, and electrical infrastructure.

MSY New Terminal Fueling System, Louis Armstrong New Orleans International Airport, Louisiana
ELECTRICAL ENGINEER. Argus provided planning, design, construction administration and resident engineering services. This program features a terminal ramp distribution system serving 35 increased fuel storage capacity and a new receipt system, a new transmission system as operational and life safety upgrades to the existing ASTs and the refueler load racks. The tank farm upgrade includes the addition of two 10,000 BBL ASTs, an inbound filtration station, a transfer pump/filtration station, Operations and Maintenance Building, tanker offload capability, and a hydrant cart test stand.

JFK Tank Farm Expansion, John F. Kennedy International Airport, New York
ELECTRICAL ENGINEER. Argus has been retained to provide design, construction administration and resident engineering services for two new 80,000 BBL aboveground fuel storage tanks to supplement the capacity of the Airport’s existing Bulk Fuel Storage Farm.

KCID Avgas Dispensing System, Eastern Iowa Airport, Iowa
ELECTRICAL ENGINEER. Argus Consulting was retained to design and construction administration of a new General Aviation Self-Service Fueling System at the Eastern Iowa Airport. The system includes one 12,000 gallon 100LL Avgas tank with separate self-serve dispensing skid positioned adjacent to the apron. The tank will be configured to allow the installation of a 30 gpm overwing dispenser with credit card reader. The project also includes a new Emergency Fuel Shutoff (EFSO) system and automatic tank gauging signaled back to the fueling FBO at the airport. The overall system will support the airports growing demand of AVGAS 100LL fuel for its general aviation tenants and position the new facility for easy access and availability 24/7.

KRQO New Avgas and Jet-A Fuel Storage and Dispensing Facility, El Reno Regional Airport, Oklahoma
PROJECT MANAGER FOR CONSTRUCTION ADMINISTRATION SERVICES. Argus was retained for design and construction services for a proposed 12,000-gallon AVGAS fuel storage tank and 12,000-gallon JET-A fuel storage tank with 30 gpm over-wing self-service combined product dispensing skid at the El Reno Regional Airport in El Reno, Oklahoma. This project is in association with apron pavement removal along with removal of the existing underground fuel storage facility.

KVGT Containment Tank, North Las Vegas Airport, Nevada
ELECTRICAL ENGINEERING. Argus was retained for the planning and design/bid/build services for a new underground spill containment system to better serve the airport's environmental needs. Argus will perform the site planning/conceptual layout, detailed design, permitting, bidding and construction support services for the installation of a new "sized" remote containment system to increase spill containment capacity for the airport's existing fuel storage facility, and a new double-wall underground fuel dispensing pipe to the existing fuel dispensing island.

KBEG Fuel Storage and Dispenser Design and Construction, Karnes Country Regional Airport, Texas
ELECTRICAL ENGINEERING. Karnes County Airport, located north east of Kenedy, Texas, is installing a new 12,000 gallon aboveground AVGAS tank and a new 12,000 gallon aboveground Jet-A tank with self-serve dispenser. The two tank system will be based upon the TXDOT Aviation System No. 1 and No. 2 Standard as developed by Argus Consulting. This includes two (2) 12,000 gallon double wall UL142 tanks with a combined product (AVGAS and Jet-A) 30 gpm over-wing self-serve dispensing skid placed at the designated refueling location on the apron.

YOC Community Aviation, Heating and Auto Fuel Storage Facility, Old Crow Airport, British Columbia
ELECTRICAL ENGINEERING. Old Crow is a community of 167 people located in Canada's northern Yukon and it is only accessible via aircraft. Hence, all fuel, including heating oil, low sulfur diesel, unleaded gasoline, Avgas, and Jet-A, are all provided via aircraft delivery. Argus was retained to assess all the fuel storage tanks within the community and the consumption and present options for a new centralized community fuel depot with additional fuel storage tanks and new unloading pumps, filters, and refueler loading equipment and dispensing for the various fuels. Argus and design/build partner W.S. Nicholls Western Construction built the community's new centralized fuel depot at the Old Crow airport, consisting of 16 total tanks, five separate unloading systems, one bulk loading system and four dispensing systems. The new equipment has been designed so that it can be delivered via C-130 Hercules aircraft or on the community's once-a-decade winter road (as seen on the History Channel's "Ice Road Truckers"), and is skid-mounted for easy installation and mobility. Heated enclosures have been built to tolerate extreme weather conditions and to be explosion proof.

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Argus Consulting, Inc.

When you think fuel, think Argus.

Argus Consulting is the fuels infrastructure engineering firm that specializes in program management, design, construction administration, and asset integrity management of fuel receiving, storage and distribution facilities and systems. For more than 25 years, Argus has worked with municipal, community and regional airports in the U.S. and Canada on Avgas storage and dispensing systems, fueling stations, truck load/unloading, and bulk fuel storage. Argus leadership has significantly contributed to the development of General Aviation industry standards, including authoring the General Aviation Fueling Standards currently used by the Texas Department of Transportation for the 300 General Aviation airports across Texas. By combining the firm's commercial aircraft fueling expertise with the personal flight experience of active pilots on its staff, Argus ensures general aviation airports will have fuel systems that are cost effective, building and fire code compliant, scaled to meet the needs of the facility and easy for staff to operate and maintain. Argus is headquartered in the Kansas City area and has offices in Atlanta, Phoenix, New York, Miami, Chicago, Houston and Jackson, Miss.

Within the last 5 years, Argus has completed fuel farm projects at the following airports:

Commercial:

Chicago O'Hare International, Louis Armstrong New Orleans International, John F. Kennedy International, Nashville International, Las Vegas McCarran International, Fort Lauderdale-Hollywood International, LaGuardia Airport, Oakland International, Reno-Tahoe International, Dallas Love-Field Airport, William P. Hobby International, Dulles International, Detroit Metropolitan Wayne County Airport, El Paso International, Baltimore/Washington International, Chicago Midway International, Charlotte Douglas International, San Jose International, Sacramento International, Jorge Chavez Lima International, Vancouver International.

General Aviation:

Napa County Airport, Eastern Iowa Airport, Sedona Airport, North Las Vegas Airport, Edinburg Texas Airport, Faribault Municipal Airport, El Reno Regional Airport, Tucumcari Municipal Airport, Cassville Municipal Airport.

General Aviation

Argus is a market leader in the design of Jet-A facilities and systems, and also supports Avgas, Mogas and Diesel systems.

Not only does Argus provide fuel system design services for 70 percent of the top 100 U.S. airports, we also provide these services for general aviation airports. Our expertise in large commercial aircraft fueling and code knowledge ensures that smaller general aviation airports or FBO Aviation Fuel Systems can deliver the same high fuel quality to pilots.

Our design staff includes active general aviation pilots who not only design fuel systems, but they use fuel systems too. Our clients can be assured that their design is scaled to meet the level of detail required for these smaller systems. Our facility designs are user-friendly for operation and maintenance, and meet federal, state and local code requirements.

Our comprehensive services include:

- Site Topographic Surveys
- Basis of Design Reports
- Code Compliance Studies
- Environmental Compliance
- Facility Master Planning
- Site Planning and Layout
- Capacity, Demand and Sizing Analysis
- Fuel Quality Considerations
- Bid Package with Signed and Sealed Drawings and Specifications
- Permitting and Bidding Support
- Equipment Submittal and Shop Drawing Review
- Equipment Procurement Services
- FAA Form 7460 Completion
- Budget and Schedule Management
- Construction Inspection
- Construction Management Plans
- Construction Support Services
- Asset Integrity Assessments
- SPCC Plan Preparation

We provide cost effective systems to best serve the airport needs and facility size. For many systems, pre-manufactured skid units are the best option. Our designs and specifications ensure that your airport gets a packaged unit that not only satisfies all code requirements, but is easy for your staff to maintain and troubleshoot. We provide complete start-up services and staff operation training.

General Aviation Systems Include:

- Self-Service Aircraft Fueling Systems
- Transport Unloading
- Refueler Vehicle Loading
- Filtration, Recirculation and Metering
- AST and UST Storage Tanks
- Ramp Pavement
- Secondary Containment Systems
- Utility Services
- Vehicle Simulation
- Spill Prevention Control and Countermeasure Infrastructure

Clients

- State DOTs
- Airport Authorities
- FBO Operators
- A/E Firms
- Airport Managers
- Developers
- City Municipalities
- Fuel Servicing Companies
- Department of Defense
- Government Agencies

Argus FUEL FORWARD

Texas Department of Transportation – Aviation Division

General Aviation Fuel System Standards Development

In 2010, Argus Consulting was retained by TXDOT to develop the General Aviation Fueling Standards for use at the nearly 300 General Aviation airports across Texas. These standards included a complete code analysis and preparation of standard drawings and specifications for fuel storage, transport unloading, refueler loading, and direct into plane dispensing facilities. To date, Argus has site adapted these standards at seven locations, including:

- Cleveland Municipal Airport,
- Hearne Municipal Airport,
- Victoria Regional Airport,
- Van Zandt County Regional Airport,
- Houston County Airport,
- Sulphur Springs Municipal Airport, and
- Lancaster Municipal Airport.

These projects included fuel storage tanks ranging from 6,000 gallons to 20,000 gallons for both Jet-A and 100 LL Avgas. The facilities included 200 gpm bulk unloading/loading/recirculation pump and filtration skids as well as 30 gpm over-wing dispensing skids with integral credit card reader to provide 24-hour unattended fueling operations. The process at each site began with a site survey and preparation of a Preliminary Engineering Report (PER) which included a site layout, cost estimate, and code analysis. Once the PER was complete, the airport authorities had a clear understanding of the cost of the system as well as a general site layout. Once the PER was approved, the development of the bid package including detailed design drawings and specification was prepared and submitted to TXDOT for advertisement to bid.

Las Cruces, New Mexico

Fuel Farm Detailed Design and Construction Support

Argus Consulting provided design and construction support for a new fuel farm at the Las Cruces International Airport featuring two new aboveground fuel storage tanks. The 12,000 gallon Jet-A tank and the 12,000 gallon Avgas tank included separate unloading/loading/recirculation skids that are used to unload the transport delivery and to load the refueler trucks. The system has recirculation capability as well. Argus also designed the demolition plan for the removal of two existing aboveground tanks, one a 10,000 gallon Avgas and one a 20,000 gallon Jet-A tank.

KEBG South Texas International Airport, Edinburg, Texas

Fuel Storage and Dispensing Facility Design and Construction Follow-On

Construction Cost: $1,492,000
Project Contact: Deborah Melvin - Airport Manager, (956) 292-2047

South Texas International Airport at Edinburg (KEBG), located north of Edinburg, Texas, is replacing the existing underground Avgas and Jet-A fuel storage tanks with bulk loading capabilities and dispensing capabilities with a new Bulk Fuel Storage and Dispensing Facility. The two tank and skid systems will be based upon the TXDOT Aviation System No. 3 Standard as developed by Argus Consulting for Jet-A; however, the both systems will be modified to include dispensing capabilities similar to TXDOT Aviation System No. 1.

KLNC Lancaster Regional Airport, Lancaster, Texas

Fuel Storage and Dispenser Design and Construction Follow-On

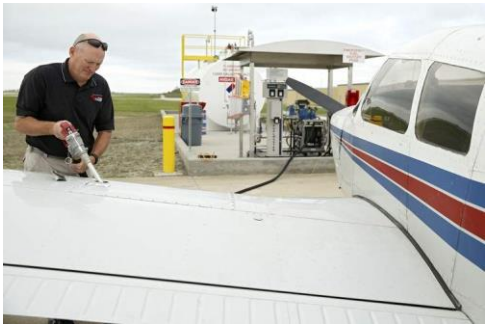
Construction Cost: $339,957
Project Contact: Mark Divita - Airport Manager, (972) 218-1274

Lancaster Regional Airport, located southeast of Lancaster, Texas, is installing a new 12,000 gallon aboveground Avgas tank with self-serve dispenser and bulk unloading and loading skid. This will supplement its existing fuel storage facility located elsewhere on the airport property. The new system will be based upon the TXDOT Aviation System No. 1 Standard as developed by Argus Consulting. This includes a 12,000 gallon double wall UL2085 tank with a separate 200 gpm pump and filtration skid and a separate 30 gpm over-wing self-serve dispensing skid.

(KCID) Eastern Iowa Airport, Cedar Rapids, IA

Avgas Dispensing System

Construction Cost: $364,593
Project Contact: Eric Scott – Foth, (319) 297-2069



Argus Consulting was retained for the design and construction of a new General Aviation Self-Service Fueling System at the Eastern Iowa Airport in Cedar Rapids, Iowa. The system includes one 12,000 gallon 100LL Avgas tank with separate self-serve dispensing skid positioned adjacent to the apron. The tank will be configured to allow the installation of a 30 gpm overwing dispenser with credit card reader. The project also includes a new Emergency Fuel Shutoff (EFSO) system and automatic tank gauging signaled back to the fueling FBO at the airport. The overall system will support the airports growing demand of AVGAS 100LL fuel for its general aviation tenants and position the new facility for easy access and availability 24/7.