REQUEST FOR PROPOSALS BY SYRACUSE REGIONAL AIRPORT AUTHORITY

FUEL FARM COATINGS AT SYRACUSE HANCOCK INTERNATIONAL AIRPORT

RFP REFERENCE # 2024-15

Issued: June 11, 2024

Submission Deadline: July 19, 2024, by 3:00 PM EST

IMPORTANT NOTICE: A restricted period under the Procurement Lobbying Law is currently in effect for this Procurement and it will remain in effect until the Authority executes the contract. Proposers are prohibited from contact related to this procurement with any Syracuse Regional Airport Authority member, officer, staff or employee other than the designated contact person (if any) and/or the designated email address for contact. Please refer to Sections 2.2 and 2.3 below.

All contacts/inquiries shall be made by email **only** to the following address: bids@syrairport.org

ALL PROPOSALS MUST BE RECEIVED VIA EMAIL PRIOR TO July 19, 2024 at 3:00 PM EST

PROPOSALS ARE ONLY ACCEPTED ELECTRONICALLY AND MUST BE ADDRESSED TO:

bids@syrairport.org

PLEASE PRINT THE WORDS "RFP REFERENCE # 2024-15 FUEL FARM COATINGS" ON THE FRONT OF THE PROPOSAL AND IN THE SUBJECT LINE OF THE EMAIL.

1. GENERAL INFORMATION

1.1. Background

The Syracuse Regional Airport Authority (the "Authority") was created by the New York State Legislature on August 17, 2011 by Chapter 463 of the Laws of 2011. The Authority is the operator of the Syracuse Hancock International Airport in Syracuse, New York. The Authority is a New York State public benefit corporation established for the purpose of (i) stimulating economic growth, (ii) increasing trade and tourism, (iii) promoting safe and secure air travel in the region, (iv) providing citizens with efficient and economical air transportation options, and (v) to protect and enhance the natural resources and quality of the environment.

1.2. Intent and Purpose of this RFP

The intent and purpose of this Request for Proposals (the "RFP") is to solicit responses for the selection of a firm to provide Surface preparation and coating of new and existing equipment, piping, supports, and tanks (exterior only) located in the pump pad area, storage tank containment area, and truck loading areas. Includes labeling of tanks and piping. Includes addition of pipe support wear pads to reduce metal-to-metal wear. Includes repairs and or replacement of stair(s), platform(s) and ladder(s) at Syracuse Hancock International Airport Aviation Fuel Farm.

A comprehensive description of the Project can be found at **Exhibit A** to this RFP.

1.3 Key Dates in the RFP Schedule

It is anticipated that a Project award will be made in connection with this Request for Proposals (RFP) based on the following schedule:

Date	Event
June 11, 2024	**Issuance of Request for Proposals**
June 25, 2024 12:30 PM EST	**Pre-Proposal Conference & Tour Location: SRAA Board Room**
July 9, 2024 3:00 PM EST	**Closing Date for Respondent's Question**
July 12, 2024	**SRAA Final Response to Proposers Questions**
July 19, 2024 3:00 PM EST	**Proposal Submission Deadline**
July 19 to July 26, 2024	**Proposal Evaluation Period and Respondent Interviews (if applicable)**
No earlier than July 22, 2024	**Award of Contract by the SRAA**
August 1, 2024	**Execution/Entering Contract**

Please note: *The Authority reserves the right to change any of the dates stated in this RFP. If such change occurs, the Authority will notify all entities who received the RFP directly from the Authority and post the change(s) on the Syracuse Regional Airport Authority's website, which is part of the Syracuse Hancock International Airport website (https://syrairport.org/sraa/bids-rfp-rfq/).* Interested parties that receive this RFP or access it from a source other than the Authority should contact the Authority at bids@syrairport.org to advise the Authority of their interest and to confirm that their correct contact information, including email address, is placed on file with the Authority.

1.4 Amendment or Termination of RFP

RFP Amendment, Cancellation/Postponement: The Syracuse Regional Airport Authority reserves the right to amend, cancel or postpone this RFP at any time without penalty. The Syracuse Regional Airport Authority reserves the right to terminate or cancel any contract awarded pursuant to this RFP, either pre or post execution, or any part of said contract, immediately upon notice mailed or delivered by the Authority to the selected proposer.

1.5 Unbalanced Proposals

The Syracuse Regional Airport Authority reserves the right to reject any and all proposals at any time not deemed in the best interest of the Authority and to reject as informal such proposals, as in the Authority's opinion, are incomplete, conditional, obscure, or which contain irregularities of any kind.

1.6 Questions or Requests for Information or Clarification

Any questions, requests for information or clarification regarding this RFP should be submitted via email, citing the relevant RFP page(s) and section(s), no later than **July 9, 2024** to bids@syrairport.org. Please include "RFP 2024-15 Fuel Farm Coatings" in the subject line.

Questions will not be accepted other than by email, and any question received after the deadline may not be answered. The list of questions/requests for information or clarification and the official responses will be addressed via an addendum and posted on the Syracuse Regional Airport Authority's website, https://syrairport.org/sraa/bids-rfp-rfq/

Proposers that receive this RFP or access it from a source other than the Authority should contact the Authority at bids@syrairport.org to confirm that and/or add their correct contact information, including email address, is on file with the Authority for purposes of this RFP. This will ensure that the proposer receives the list of questions/requests for information, amendments or clarifications and the official responses. The Authority is not responsible for a proposer's failure to receive the list of questions/requests for information, amendments or clarifications and the official responses, due to the proposer's failure to provide the Authority its contact information, including email address, and no allowance will be made for a proposer that submitted a proposal that is not in compliance with the RFP requirements due to the proposer's aforementioned failure

to receive the list of questions/requests for information or clarification/amendments and addenda, and the official responses to such inquires and/or changes.

By submitting a proposal to the Authority in response to this RFP, each proposer agrees and represents and warrants that the proposer: a) has all information necessary for the proposer to complete and submit a fully responsive proposal to the Authority; b) that if awarded the contract, that the proposer has all the necessary skills and resources to complete the contract for the amount stated in the proposal; and c) that the proposer is waiving any and all claims against the Authority and its members, officers, staff and employees relating to the submission of the proposer's proposal to the Authority. Proposer will bear any, and all travel and other costs and expenses related to its attendance at the pre-submittal meeting and facility tour (if any). Verbal responses provided by Authority representatives at such meeting/tour are informal and are not binding on the Authority.

1.7 Amendments and Addenda

In the event that it becomes necessary to revise this RFP, such revision will be by an addendum to this RFP. Any addendum to this RFP will become part of this RFP and part of any contract awarded as a result of this RFP. Further, if a proposer discovers any conflict, discrepancy, omission or other error in this RFP, the proposer shall immediately notify the Authority at bids@syrairport.org, of such error and request modification to the document to address such alleged error. The Authority shall make any RFP modifications necessary by addenda, provided that any such modifications would not materially benefit or disadvantage any one proposer over another. If a proposer fails, prior to the submission deadline, to notify the Authority of a known error or an error that reasonably should have been known or discovered by proposer, the proposer shall assume the risk of such failure to notify. If awarded the contract, the proposer shall not be entitled to additional compensation, change order or time allowance by reason of the error or its late correction. All RFP addenda will be communicated via email to the recipients of the original RFP.

The Authority is not responsible for a proposer's failure to receive amendments or addenda pertaining to this RFP. It is incumbent on proposers to routinely check for amendments and addenda at *(*https://syrairport.org/sraa/bids-rfp-rfq/ and no allowance will be made for a proposer's failure to receive addenda. As of the date of issuance, there are no designated dates for release of addenda. However, proposers should check the Authority's website frequently beginning at the time of RFP issuance through the deadline for submission of proposals. It is the sole responsibility of the proposer to be knowledgeable of all amendments, addenda, questions and answers related to this RFP.

1.8 Submission Requirements

Proposer's proposal, including all required forms attached at Exhibits to this RFP, shall be submitted via email to bids@syrairport.org in response to this RFP. The email with attached proposal and all required forms in PDF format shall be submitted. Each copy shall be clearly

labeled with the name of the proposer and the date. Each copy must contain the required information for the proposer. Proposers are to ensure that their proposals are in compliance with all of the requirements of this RFP. Failure to do so may result in disqualification. Proposers should also be willing and able to provide additional information that may be required. In addition, interviews may be requested at the discretion of any RFP review or ad hoc Committee appointed by the Authority. All information and materials submitted to the Authority in response to this RFP will become the property of the Authority. Proposers shall not submit proprietary or confidential business information unless they believe such information is critical to their submittals or presentations. If any such information is included, it shall be clearly identified as such. The Authority shall endeavor to protect the identified information only to the extent allowed under applicable law.

1.9 Submission Due Date

Proposals must be received via email no later than **July 19, 2024 at 3:00 PM EST** to:

bids@syrairport.org

Proposals received after the specified date and time will not be considered.

2.0 Proposals and Qualifications Review

Upon receipt of proposals, the Authority's shall internally review each proposal and make a recommendation to the Board of the Authority. Proposals will be reviewed on the basis of competency, experience and ability to perform the services required. Proposers should be willing and able to provide additional information that may be required by the Authority. The Syracuse Regional Airport Authority reserves the right to waive any formalities and to reject or negotiate any and all proposals for any reason.

2.1 Award

The Syracuse Regional Airport Authority may award the project(s), following the required approvals, if it determines such project(s) is/are in the best interest of the Syracuse Regional Airport Authority.

2.2 Restriction of Communications

Proposers are prohibited from contact related to this RFP with any Authority Board member, officer, staff, employee or representative other than designated personnel from the date this RFP is issued until the contract(s) have been executed by the Authority. Violation of this provision is grounds for immediate disqualification. All inquiries concerning this RFP must be done via email at: bids@syrairport.org Please indicate RFP Reference # **2024-15** in the subject line of the email.

2.3 New York State Finance Law Sections 139-j and 139-k

Pursuant to State Finance Law §§ 139-j and 139-k (collectively, the "Statute"), certain restrictions are placed on contact with State agencies, including public entities such as the Authority, during the procurement process. The term "contact" is defined in the Statute as "any oral, written or electronic communication with a governmental entity under circumstances where a reasonable person would infer that the communication was intended to influence the governmental entities conduct or decision regarding the governmental procurement." Upon receiving any contact, the Authority must inquire and record whether the person or organization that made the contact was the offeror (defined below), or was retained, employed or designated on behalf of the offeror to appear before or contact the Authority. The term "offeror" is defined in the Statute as "the individual or entity, or any employee, agent or consultant or person acting on behalf of such individual or entity, that contacts a governmental entity about a governmental procurement during the restricted period of such governmental procurement whether or not the caller has a financial interest in the outcome of the procurement; provided, however, that a governmental agency or its employees that communicates with the procuring agency regarding a governmental procurement in the exercise of its oversight duties shall not be considered an offeror." The "restricted period" is defined in the Statute as "the period of time commencing with the earliest written notice, advertisement or solicitation of a request for proposal, invitation for bids, or solicitation of proposals, or any other method for soliciting a response from offerors intending to result in a procurement contract with a governmental entity and ending with the final contract award and approval by the governmental entity and, where applicable, the state comptroller." Authority members, officers, staff and employees are also required to obtain certain information when contacted during the restricted period and make a determination of the responsibility of the offeror pursuant to the Statute. Certain findings of non-responsibility can result in rejection for contract award and, in the event of two findings within a four-year period; the offeror is debarred from submitting a proposal on or being awarded any procurement contract for a period of four years from the date of the second final determination. Any Proposer responding to this RFP must complete the Non-Collusive Proposal Certification attached hereto at **Exhibit B** and submit it to the Authority with its proposal. Questions regarding this form may be directed to the Designated Contact email for this solicitation and/or visit the following website for information: https://online.ogs.ny.gov/legal/lobbyinglawfaq/

VIOLATIONS OF THE FOREGOING SECTIONS 2.2 and 2.3 SHALL BE STRICTLY ENFORCED AND MAY RESULT IN DISQUALIFICATION OF THE PROPOSAL TO WHICH IT PERTAINS.

2.4 Exceptions

Any and all exceptions to this RFP must be clearly and completely indicated in proposals submitted. Please be advised that any exceptions to the requirements in this RFP may be cause for a proposer's proposal to be disqualified.

2.5 Proposal Costs

The proposers' costs for the proposer's entire submittal effort shall be borne by the proposer. The Authority will not reimburse any proposer or other firm for any costs associated with its submittal effort.

2.6 Whistleblower Policy and Procedures

The selected Proposer will be required to comply with and perform its services under the contract in accordance with any and all Whistleblower Policy and Procedures adopted by the Authority and available on its website at: https://syrairport.org/about-us/policies-and-procedures/

2.7 M/WBE-SDVOB Program

As advised above, the Authority is a New York public benefit Corporation. As such it must comply with Articles 15-A and 17-B of the New York State Executive Law pertaining to Minority/Women Business Enterprises (M/WBE) and Service-Disabled Veteran Owned Businesses (SDVOB) respectively. These statutes require the Authority to promote contracting opportunities for M/WBE's and SDVOB's. In turn, proposers utilization of M/WBE's and SDVOB's is a factor in awarding projects and imposes obligations on a selected proposer to utilize M/WBE's and SDVOB's in performance of contracts with the Authority. By submitting a proposal, the Proposer represents that it has reviewed and familiarized itself with the New York State M/WBE and SDVOB regulations which are incorporated herein by this reference. Any conflicts between this solicitation and those regulations shall be resolved in favor of the regulations. Each proposer shall, in accordance with the regulations, make good faith efforts and, in a manner that can be established in documentary form, solicit active participation by certified M/WBE's and SDVOB's in connection with any contract resulting from this RFP. These regulations, and any contract to be entered into between the Authority and the successful proposer, will impose reporting obligations on the awarded contractor to periodically report various M/WBE and SDVOB information to the Authority. Annexed hereto at **Exhibit C and D** respectively are various M/WBE-SDVOB forms and information which the Authority requires all proposers to complete and submit with each proposal. Failure to do so will result in a finding of non-responsiveness and rejection of that proposal.

For purposes of this solicitation, the Authority has established goals of **twelve percent (12%) for Women-Owned Business Enterprises (WBE)** participation, **five percent (5%) for Minority-Owned Business Enterprises (MBE)** participation and six percent **(6%) for Service-Disabled Veteran Owned Business (SDVOB)** participation.

2.8 Conditions, Terms and Limitations

This RFP is subject to the specific conditions, terms and limitations stated below:

1. The services to be performed shall conform to and be subject to the provisions of the New York Public Authorities Law, Generally Accepted Auditing Standards, Generally Accepted Accounting Principles, and Standards promulgated by the NYS Comptroller and Authorities Budget Office and all other applicable laws and regulations of all Federal and State agencies having jurisdiction.

2. Valid licenses and registrations as required by the Authority and any State, and Federal agencies shall be obtained by the successful proposer prior to commencing work.

3. Final designation of a proposer will depend on satisfaction of all additional RFP documentation and review requirements of the Authority and will be subject to the subsequent approval by the Authority.

4. No transaction will be consummated if any selected proposer or principal of a selected proposer or any member of the proposer's development team is in arrears or in default upon any debt, lease, contract or obligation regarding the Authority or Syracuse Hancock International Airport. The Authority reserves the right to reject any response to this RFP by any such proposer.

5. The Authority reserves the right to:

    a. Negotiate with one or more proposers, and/or negotiate on terms other than those set forth herein.

    b. At any time, waive compliance with, or change any of the terms and conditions of this RFP, to entertain modifications or additions to selected proposals.

6. This RFP does not represent any obligation or agreement whatsoever on the part of the Authority. Any such obligation or agreement may only be incurred or entered into by written agreement authorized by the Board of the Authority, approved as to form by the Authority's counsel and executed by the Executive Director of the Authority.

7. Mere selection of a proposer will not create any rights on the proposer's part, including, without limitation, rights of enforcement, equity or reimbursement, until after all required government approvals are received and the insurance, agreement and all related documents are fully approved and executed.

8. This RFP and any agreement or other documents resulting therefrom is subject to Federal, State, or local law or regulation having jurisdiction over the subject matter thereof, as the same may be amended from time to time.

9. Title VI Solicitation Notice: The Authority, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d-2000d-4) and its related Regulations, hereby notifies all proposers that it will affirmatively ensure that any contract entered into pursuant to this RFP, will provide disadvantaged business enterprises a full and fair opportunity to submit proposals in response to this RFP and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

2.9 EVALUATION PROCESS

2.9.1 General Information

Upon receipt of proposals, the Authority and/or any Ad Hoc Committee it shall appoint for reviewing proposals ("Committee") will review each Proposal and may recommend a Proposer(s) to the Board of the Authority to be awarded a contract to provide the required services at the Airport.

Proposers should be willing and able to provide additional information that may be required by the Authority or its Committee. Also, interviews and office visits may be requested at the discretion of the Authority/Committee.

Upon review of proposals submitted by Proposers, the Authority/Committee may, at its discretion, submit to Proposers written questions and requests for clarification relating to their Proposals. Proposers will be provided the period of time in which the written responses to the Authority's requests for clarification must be completed.

Other than to provide clarifying information as may be requested by the Authority, including the Committee, no Proposer will be allowed to alter its proposal or add information.

2.9.2 Submission Review

The Authority/Committee will examine all proposals that are received in a proper and timely manner to determine if they meet the proposal submission requirements, as described in this RFP. Proposals that are materially deficient in meeting the submission requirements or have omitted material documents, in the sole opinion of the Committee, may be rejected. Proposals failing to pass the Submission Review will be considered non-responsive and will not be evaluated any further.

2.9.3 Proposal Review Criteria

Proposals will be reviewed based on a variety of criteria, including but not limited to:

1. The education, experience and/or expertise of the Proposer and it's principals and key employees.
2. The Proposer's specific experience, stability and history of performance providing the requested services similar to those under consideration.
3. The availability of adequate personnel to provide the requested services safely and efficiently.
4. The Proposer's approach to the planning, organization, supervision, and management of the requested services at the Airport, including communications procedures, problem-solving approaches, costing and other level-of-service factors.
5. The Proposer's proposed fee for the services requested herein with a breakdown of those fee's as they relate to discrete tasks or phases of the work to be performed.
6. Commitment to consistently maintain the highest standards of performance and the expeditious resolution of problems and complaints.

7. The financial stability of Proposer's organization.
8. The recommendations and opinions of each Proposer's previous customers or clients.
9. Information provided in response to specific questions and requirements contained in the RFP and all attachments/exhibits.
10. The proposer's past experience at the Syracuse Hancock International Airport.
11. Information provided at interview (if required).

As stated above, the selection criteria include the fee the Proposer will charge the Authority for the services described in this RFP. The Proposer must certify in the proposal that its fee covers all services proposed and meets the requirements of this RFP. The total estimated contract value for the services provided will be derived from the successful proposer's proposed fee.

The Committee will evaluate each proposal based on a "Best Value" concept. This means that the proposal(s) that optimize(s) quality, cost, and efficiency among responsive and responsible Proposers shall be selected for award.

The Authority and its review committee will determine which proposal(s) best satisfies its requirements. The Authority reserves all rights with respect to the award. All proposals deemed to be responsive to the requirements of this procurement will be evaluated. Proposals failing to meet the requirements of this RFP may be eliminated from consideration. Qualified staff/individuals will evaluate all submitted proposals. The Authority may request clarification of a proposal.

2.9.4 Reservation of Rights

The Authority reserves the right to:

(i) withdraw or cancel the RFP at any time and at its sole discretion;

(ii) reject any or all proposals received in response to this RFP;

(iii) accept a proposal and any subsequent proposal for the contract from someone other than the lowest cost Proposer consistent with the criteria for the evaluation of proposals;

(iv) make an award under the RFP in whole or in part;

(v) disqualify any proposer whose conduct and/or proposal fails to conform to the requirements of the RFP;

(vi) seek clarifications and revisions of proposals;

(vii) use proposal information obtained through site visits, management interviews and the Authority's investigation of a proposer's qualifications, experience, ability or financial standing, and any material or information submitted by the proposer in response to the agency's request for clarifying information in the course of evaluation and/or selection under the RFP;

(viii) prior to the bid opening, amend the RFP specifications to correct errors or oversights, or to supply additional information, as it becomes available;

(ix) prior to the bid opening, direct proposers to submit proposal modifications addressing subsequent RFP amendments;

(x) change any of the scheduled dates;

(xi) eliminate any mandatory, non-material specifications that cannot be complied with by all of the prospective proposers;

(xii) waive any requirements that are not material;

(xiii) negotiate with the successful proposer within the scope of the RFP in the best interests of the Authority;

(xiv) conduct contract negotiations with the next responsible proposer, should the Authority be unsuccessful in negotiating with the selected proposer;

(xv) utilize any and all ideas submitted in the proposals received;

(xvi) unless otherwise specified in the solicitation, every submission is a firm offer and not revocable for a period of 60 days from the bid opening; and,

(xvii) require clarification at any time during the procurement process and/or require correction of arithmetic or other apparent errors for the purpose of assuring a full and complete understanding of an offerer's proposal and/or to determine an offerer's compliance with the requirements of the solicitation.

(xviii) waive or modify minor deviations in the proposals received after prior notification to the Proposers;

(xix) request best and final offers; and

(xx) Should the Authority be unsuccessful in negotiating a contract with a selected Proposer, the Authority may begin contract negotiations with the next highest-rated qualified Proposer. In addition, if it is subsequently determined by the Authority that the selected Proposer is non-responsible, the Authority may then invite the next highest rated, qualified Proposer(s) to enter negotiations for purposes of executing a contract. The Authority may do all of the foregoing without the need to recommence the RFP process.

The foregoing is a non-exhaustive list of the Authority's rights and remedies, all of which are hereby expressly reserved whether or not specifically listed.

2.9.5 CONFLICTS OF INTEREST

Members, officers, staff, and employees of the Syracuse Regional Airport Authority may respond to this RFP only in accordance with the Authority's Code of Ethics.

2.9.6 INSURANCE REQUIREMENTS

The selected Contractor shall be required to purchase at its own cost and expense and maintain at all times for the duration of the contract with the Authority, insurance coverage as specified below. Additional coverage may apply as necessary.

The Contractor shall obtain and for the duration of the contract, maintain a Commercial General Liability insurance policy including contractual liability coverage, with minimum limits of:

- Bodily Injury $_1,000,000___ each occurrence
- Bodily Injury $_2,000,000___ aggregate
- Property Damage $_1,000,000__ each occurrence
- Property Damage $_2,000,000__ aggregate
- The General Liability policy shall name the Authority and the City of Syracuse and their respective members, officers, staff, and employees as additional insureds for both ongoing and completed operations.

The Contractor shall obtain and maintain workers' compensation and employer's liability insurance policy or policies covering its obligations in accordance with the provisions of New York Workers' Compensation Law, including Article 9 of New York Workers' Compensation Law, known as the Disability Benefits Law, and any and all rules, regulations and procedures promulgated pursuant to the New York Workers' Compensation Law.

The Contractor shall obtain and maintain a commercial umbrella/excess insurance policy with annual aggregate coverage of at least _Five Million___ Dollars ($5,000,000) for the commercial general liability. The schedule of underlying insurance, additional insured follow form or its equivalent and endorsements must be provided to the Authority.

Annexed hereto at **Exhibit E** respectively is a Proof of Insurance Coverage form and information which the Authority requires all proposers to complete and submit with each proposal. Failure to do so will result in a finding of non-responsiveness and rejection of that proposal.

2.9.7 CONTRACT PREPARATION/NEGOTIATION

After a proposer(s) is recommended by the Authority's review committee, and if necessary approved by the Authority's Board, an agreement incorporating the agreed upon compensation and scope of services and other relevant terms will be drafted by the Authority's counsel and submitted to the successful proposer.

2.9.8 QUALIFICATIONS

1) Bidder must have a minimum of five (5) years of experience in the systems specified. The Syracuse Regional Airport Authority will not accept the experience of individual employees or combinations of employees as company experience.

2) Bidder must submit, at a minimum, three (3) business references, including contact name, email address, telephone number, and mailing address. These references must be from

customers for whom the Bidder has provided Coating Services of the same nature and type described in this RFP.

Annexed hereto at **Exhibits F and G** respectively are the relative qualification forms and information which the Authority requires all proposers to complete and submit with each proposal. Failure to do so will result in a finding of non-responsiveness and rejection of that proposal.

Exhibit A

Scope of Work

PROJECT LOCATION: Syracuse Hancock International Airport (SYR)
WORK DESCRIPTION: Coating Work Including Dike Penetrations

Problem Description:

1. Surface preparation and coating of new and existing equipment, piping, supports, and tanks (exterior only) located in the pump pad area, storage tank containment area, and truck loading areas. Includes labeling of tanks and piping. Includes addition of pipe support wear pads to reduce metal-to-metal wear.

Points of Contact:

1. This Project will be performed in an Airport Environment; escorting requirements are at the discretion of the SYR Fueling System Operator.
2. Scheduling of work activities is to be coordinated through Cliff Pelton at peltonc@syrairport.org or his designee.
3. The contractor will coordinate all works with the Site Contact:

   Local Contact

   Syracuse Regional Airport Authority (SRAA)

   Cliff Pelton, Director of Facilities

   PeltonC@syrairport.org

   1000 Col. Eileen Collins Blvd.

   Syracuse, NY 13212

General Instructions:

1. The work described in this directive is for the Syracuse Hancock International Airport (SYR) Fuel Facility.
2. Submit the following to SRAA:
   A. Cost estimate for performing the work as outlined in the Work Directive, including all mobilization, equipment, materials, parts, and subcontractor costs.
   B. Mobilization Plan, including but not limited to location where contractor forces are mobilizing from, cost for mobilization, and equipment to be mobilized.
   C. Submittals of materials, i.e. cut sheets and product data prior to installation per Specification Section 01 33 00.00 (attached).
   D. A work plan detailing the surface preparation and coating work in each area listed to minimize service disruption.
3. The Contractor shall obtain all permits and pay all fees associated therewith.
4. Contractor to provide all equipment needed to access airport tank farm facility and perform the work as detailed below.
5. The contractor is to coordinate with the facility operator as all equipment is active and in service.
6. Contractor is to field verify all materials required to complete the work as described herein.
7. The contractor is to collect and legally dispose of all associated waste products from surface preparation and coating activities.

Specifications

The following Specifications are application to this work and are included in the Appendices:

1. 01 33 00.00 – Compliance Submittals
2. 02 00 00.00 – Sitework General Provisions
3. 09 97 13.00 – Fuel System Coatings
4. 33 52 43.00 – Fuel System General Provisions

Submittals:

Contractor to supply SRAA with submittals of all materials, i.e. cut sheets, product data, etc. prior to installation per Specification Section 01 33 00.00 (attached) and the applicable specification sections.

Owner Furnished Equipment

There is no Owner furnished equipment applicable to this Work Directive.

Scope of Work:

1. SRAA has collected chip samples of the existing external coatings of piping, equipment, etc. for lead. Based on the results of the analysis, lead-based paint abatement will not be required to be performed by the Contractor prior to the start of repairs and modifications.

2. All coating and labeling work to comply with Specification Section 09 97 13.00 – Fuel System Coatings, attached.

3. Provide temporary cover and protection to nearby equipment, instruments, accessories, and other surfaces that will not be prepared and/or coated under this Work Directive

4. Prepare all equipment and piping surfaces to be coated following the methodology recommended by the manufacturer for each specific coating system. Refer to the technical specifications for details.

5. Once the coating work is complete, remove all temporary covers and protection from other surfaces, especially from tank vents and other openings that must be unobstructed. Clean adjacent surfaces from masking tape residues, paint spills, etc. and repair any coating damage that is visible.

6. Pipe Supports
   A. Provide Fuel System Coating System 3 to the external surfaces of all carbon steel pipe and equipment supports in all areas included below.
   B. Provide FRP wear pad at each pipe support between the pipe support and bottom of pipe. Wear pad shall be permanently attached to the pipe or support. Excess material shall be removed.

7. Pumping Pad
   A. All existing and new piping, equipment, valves, supports, and tanks are to be coated per the specifications. This includes two Jet A unload systems, two Jet A loading systems, one each diesel fuel, mogas, and aircraft deicing fluid unload systems, and one Jet A "Fuel Sump" tank.
   B. Provide Fuel System Coating System 3 to the external surfaces of all aboveground pipes, supports, fittings, equipment, and tanks.
   C. Label all piping, equipment (filter/separators), and tanks per the attached details and specifications after coating is complete.
   D. See Figure 5.

8. Tank Farm
   A. All existing and new piping, valves, supports, and tanks (exterior) and appurtenances are to be coated per the specifications. This includes two vertical 5,000 bbl Jet A tanks (33'-6" diameter, 32'-0" tall), two horizontal 20,000 gallon glycol tanks (10-0" diameter, 34'-0" long), one 20,000 gallon mogas tanks (10-0" diameter, 34'-0" long), one 1,000 gallon diesel fuel tank (4'-0" diameter, 10'-9" long), and one 10,000 gallon diesel fuel tank (dimensions unknown).
   B. Provide Fuel System Coating System 3 to the external surfaces of all aboveground pipes, supports, fittings, equipment, and tanks.
   C. Label all piping and tanks per the attached details and specifications after coating is complete. Aircraft deicing fluid tank and piping shall be labeled similar to Jet A labeling as directed by SYR and SYR's deicing fluid supplier.
   D. See Figures 6, 7, and 8.

9. Loading Areas
   A. All existing and new piping, equipment, valves, and supports are to be coated per the specifications. This includes two Jet A load positions, and one mogas loading position.
   B. Provide Fuel System Coating System 3 to the external surfaces of all aboveground pipes, supports, fittings, and equipment.
   C. Label all piping per the attached details and specifications after coating is complete.
   D. See Figures 3 and 4.

10. Foam Piping
   A. All existing foam piping is to be coated per the specifications.
   B. Provide Fuel System Coating System 3 to the external surfaces of all aboveground pipes, supports, fittings, and equipment.
   C. Label all piping per the attached details and specifications after coating is complete.
   D. See Figure 11.

11. Buried Piping
   A. Coating repair of piping penetrating the tank containment dike will require breaching the established containment of the tank farm. However, the Major Oil Storage Facility (MOSF) 5-year Inspection and Certification of Secondary Containment Systems Final Report dated December 22, 2021, showed an excess of containment volume available, even with the required freeboard included. It may be possible to reduce the dike wall height by as much as half and still have sufficient containment volume.
   B. Prior to breaching the containment dike, the NYS-DEC MOSF Regional Spill Engineer must be contacted to discuss the project and to determine the requirements and permits, if any, that may required prior to commencing work. These requirements may include:
      - Develop an Emergency Response / Spill Response Plan. This will include a written commitment of resources and personnel to provide spill response and containment measures in case of a spill or release occurring during construction.
      - A qualified local emergency response contractor shall be retained to provide spill response services and maintain a stockpile of spill response/recovery equipment (sorbent pads, booms, pumps, etc.) on site.
      - Establish an AST inspection program which includes frequent inspections (once per hour) for contractor personnel to implement during the time the containment is reduced.
   C. Provide Fuel System Coating System 5 to all piping sections embedded/buried in the containment dike. Denso is preferred.
   D. See Figures 9 and 10.

E. The dike wall shall be restored to the same condition as found prior to beginning the work. Drawing G- 5 in Appendix C shows the original installed condition. Per the MOSF Final Report referenced above, the existing clay liner material has an average permeability of 1.16×10^{-7} cm/sec (1.64×10^{-4} in/hr) for the berm.

12. Stairs & Platforms
    A. To be inspected and repaired and or relaced to meet all applicable safety standards and codes
    B. To include:
        - Stair Treads
        - Toe Kicks
        - Railings
        - Landings

13. Ladders
    A. To be inspected and repaired and or relaced to meet all applicable safety standards and codes

14. Tie Off Points
    A. Current elevated tank platforms on both Jet-A tanks don't incorporate tie off points.
    B. Design, furnish and install two (2) tie off points per tank.

Quality Assurance:

1. No foreign made products and utensils may be used in this work. All such items shall be American made, manufactured in the United States of America. If any foreign items are found within the work supplied under this contract, the Contractor shall remove and replace them with American made items at no additional charge to the Owner.
2. The drawings and specifications shall be considered complementary, one to the other, so that materials and labor indicated, or called for, or implied by the one and not the other, shall be supplied and installed as though specifically called for by both.

3. All materials and equipment provided under these specifications shall be new, unused products of manufacturers regularly engaged in production of such equipment for a minimum of 5 years. All products shall conform to the applicable code or standard for its manufacturing, fabricating and installation.

All equipment, materials, components, coatings, and accessories provided shall be suitable for use with the specific fuel type being used in the system.

References:

1. See applicable specification section.

Figures:

1. Figure 1 – Aerial View Site Work Location at Fuel Tank Farm
2. Figure 2 – Areas
3. Figure 3 – Jet A and MoGas Loading Island (No. 1)
4. Figure 4 – Jet A Only Loading Island (No. 2)
5. Figure 5 – Pump Pad
6. Figure 6 – Tank Farm

7. Figure 7 – Jet A Tanks
8. Figure 8 – Other Tanks
9. Figure 9 – Buried Product Piping
10. Figure 10 – Buried Foam Piping
11. Figure 11 – Foam Piping

Appendices:

A. Specifications
B. Standard Details
   Pipe Labels, Jet-A
   Pipe Labels, Diesel Fuel
   Pipe Labels, Unleaded Gasoline (Mogas)
   Tank (Vertical) Labels, Jet A
   Tank (Horizontal) Labels, Jet A
   Tank (Horizontal) Labels, Diesel
   Tank (Horizontal) Labels, Unleaded Gasoline (Mogas)
C. Reference Drawi

Figure 1 – Aerial View Site Work Location at Fuel Tank Farm

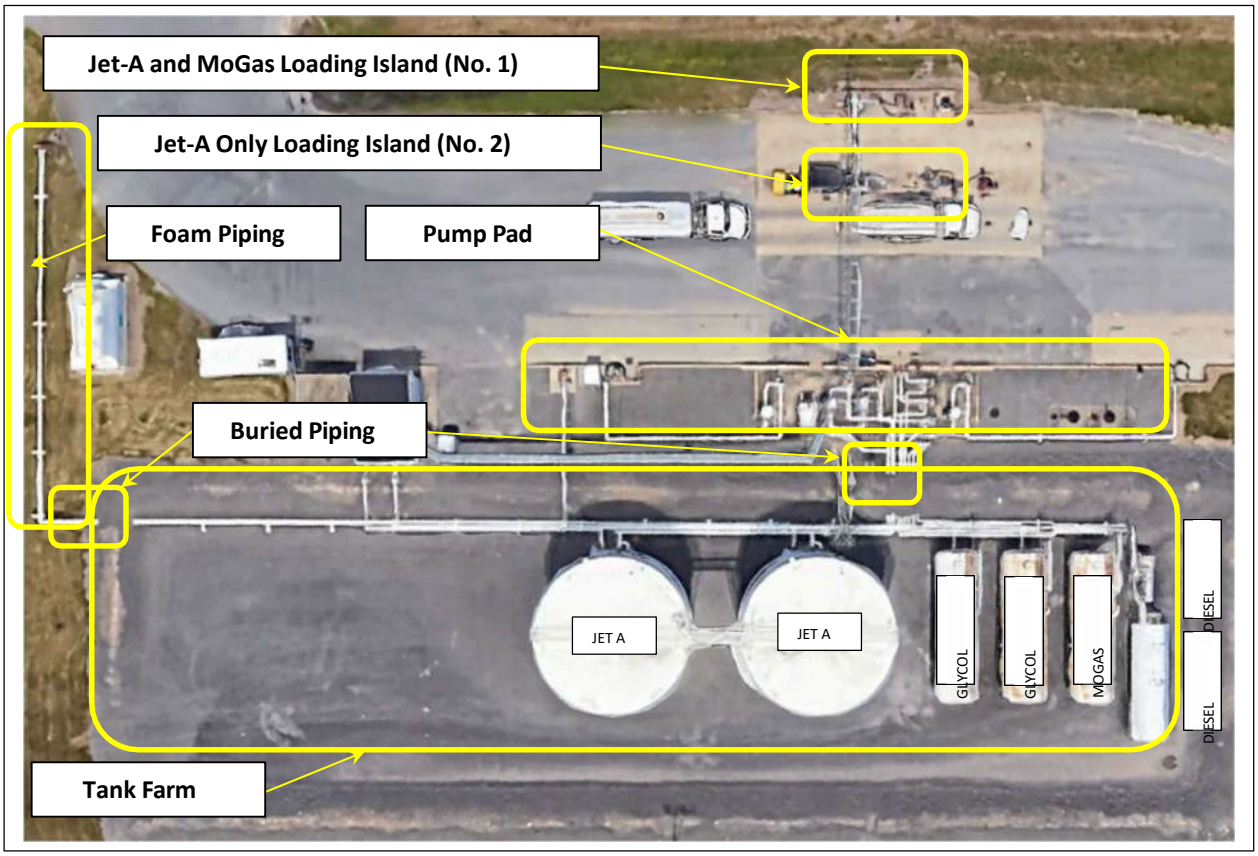

Figure 2 – Area

Figure 3 – Jet A and MoGas Loading Island (No. 1)

Figure 4 – Jet A Only Loading Island (No. 2)

Figure 5 – Pump Pad

Figure 6 – Tank Farm

Figure 7 – Jet A Tanks

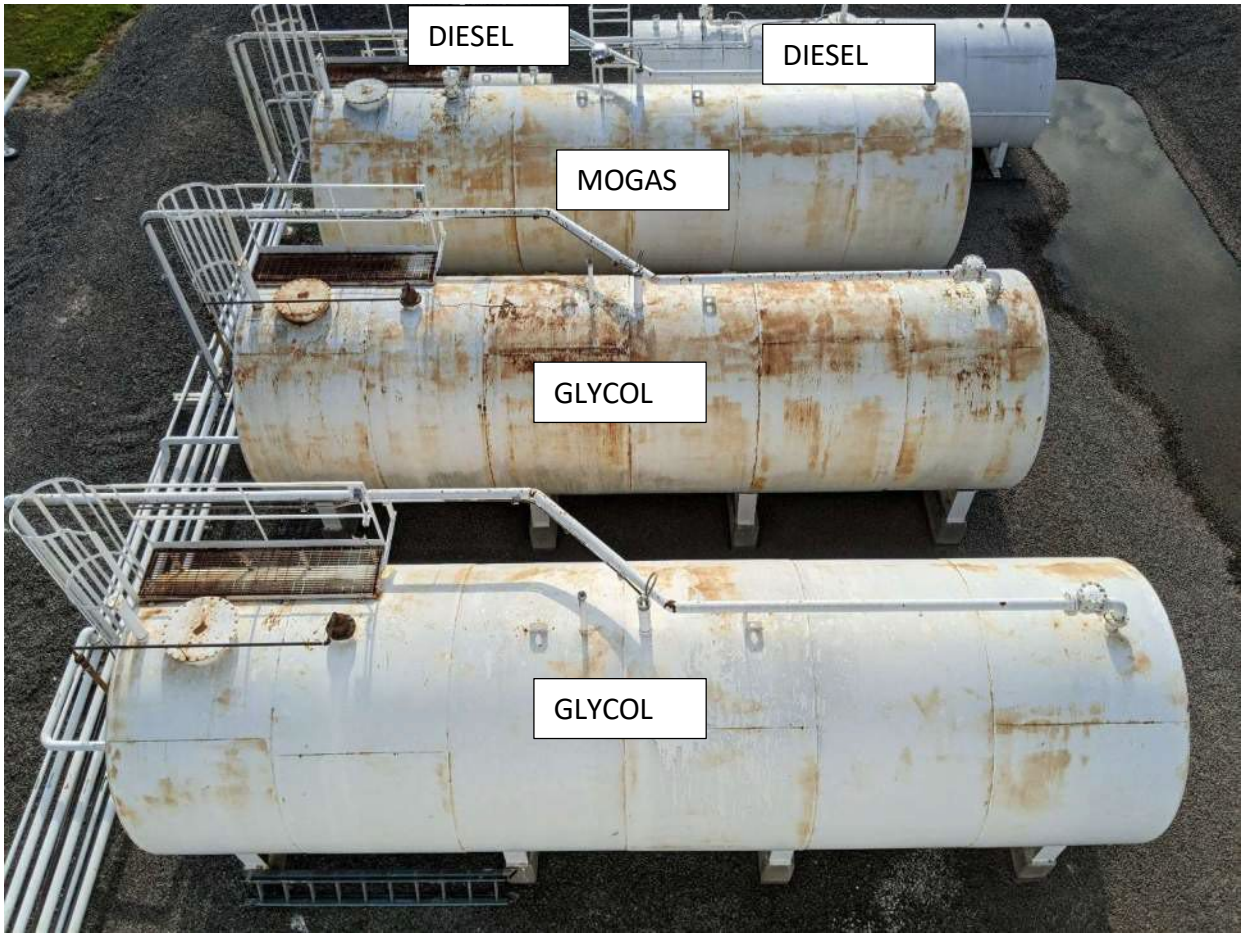

Figure 8 - Multi-Product Tanks

Figure 9 – Buried Product Piping

Figure 10 - Buried Product Piping

Figure 11 – Foam Piping

Appendix A
Specifications

Section 01
Compliance Submittals

PART 1 - GENERAL

1.01 Summary

A. This section defines procedures for submittal of shop drawings, product data, and samples.

1.02 REQUIREMENTS INCLUDED

A. Submit Shop Drawings, Product Data, Samples, Coordination Drawings, Certifications, and Field Mock-Ups concurrently as required by Contract Documents and as reasonably requested by the Owner.

1.03 RELATED REQUIREMENTS

A. Division 1 Sections of the Project Manual are applicable in the execution of all Specification Sections.

1.04 SHOP DRAWINGS

A. Present drawings in a clear and thorough manner. Prepare original, Project specific documents - do not reproduce Construction Documents and resubmit as shop drawings.

B. Identify details by reference to sheet and detail, schedule or room numbers shown on Contract Drawings.

C. Consecutively number shop drawings for each section of work. Retain numbering system throughout all revisions. For example, the first submittal for all work in Section 33 52 43.13 shall be Submittal No. 33 52 43.13-1.

D. Show detail, materials, dimensions, thickness, methods of assembly, attachments, relationship to adjoining Work and other pertinent data and information.

E. Verify dimensions and field conditions. Clearly indicate field dimensions and field conditions.

F. Check and coordinate shop drawings of any section or trade with requirements of other sections or trades as related and as required for proper and complete installation of work.

G. Prepare composite shop drawings and installation layouts when necessary or requested to depict proposed solutions for tight field conditions. Coordinate in the field and with affected subcontractors for proper relationship to work of other trades based on field conditions.

1.05 PRODUCT DATA

A. Preparation
   1. Clearly mark each copy to identify pertinent products or models.
   2. Show performance characteristics and capacities.
   3. Show dimensions and clearances required.
   4. Show wiring or piping diagrams and controls.
   5. Indicate specified finish.
   6. Indicate applicable specification section.

B. Manufacturer's standard schematic drawings and diagrams:
   1. Modify drawings and diagrams to delete information that is not applicable to the Work.
   2. Supplement standard information to provide information specifically applicable to the Work.

1.06SAMPLES

A. Provide samples as specified.

1.07 COORDINATION DRAWINGS

A. Prepare coordination drawings (elevations, and details, etc.) to indicate how work shown by separate mechanical and electrical shop drawings are to be interfaced, coordinated and sequenced for installation. Coordination drawings are also required to show all required

installation, access and maintenance clearances.

B. Contractor shall be responsible for coordination of Work.

C. Hold coordination meeting with all trades.

D. It is recommended the Contractor prepare coordination drawings as follows:

1. Structural: Prepare original drawings indicating structural work. Identify waterproofing.
2. Civil: Indicate all civil work, including utility locations, within Project limit lines on same original drawings.
3. Fueling: Indicate all fueling equipment and piping on same original drawings. These drawings are not to be considered as piping shop drawings. These drawings should show all valves, fittings, supports, instruments and other items requiring access for service and maintenance. The drawings shall also show beams, ceiling heights, walls, floor to floor dimensions, floors, and other major features as shown on the drawings. Show all required installation, access and maintenance clearances.
4. The record copies of final composite drawings should be retained by the Contractor and each Subcontractor as a working reference. All shop drawings, prior to their submittal for approval should be compared by the Contractor with the composite drawings and developed accordingly by the trade responsible. Any revisions to the composite drawings that may become necessary during the progress of the work should be noted by all trades and shall be neatly and accurately recorded on the record copies.

E. Coordination drawings are for the Contractor's use during construction and shall not be construed as replacing any shop drawing or other Project Record Document required by Contract Documents.

F. The drawings shall be submitted. The coordination drawings may lack complete data in certain instances pending receipt of shop drawings, but sufficient space shall be allotted for the items affected. When final information is received data should be promptly inserted on the composite.

G. No extra compensation will be paid for relocating any pipe, conduit, or other material that has been installed without proper coordination between all the trades involved.

H. Changes in the scope of the work due to revisions formally issued and approved should be shown on the composite drawings.

I. The Owners review of coordination drawings shall not relieve Contractor from overall responsibility for coordination of work performed pursuant to Contract or from other requirements of Contract.

1.08 MANUFACTURER'S CERTIFICATION OF MATERIALS AND EQUIPMENT

A. Before shop drawings or manufacturer's data for equipment are submitted for approval, a duly authorized manufacturer's representative of the proposed equipment shall review the design of the system relative to the proper operation of his equipment and material.

1. Shop drawings and/or manufacturer's data submitted shall include letter from

manufacturer's representative certifying that his equipment and materials will operate and function satisfactorily under the design conditions.

B. Before the work is accepted, a duly authorized manufacturer's representative of the installed equipment and materials shall inspect the installation and operation of his equipment and materials to determine that they are properly installed and properly operating in accordance with the manufacturer's recommendations.

1.09 CONTRACTOR REVIEW

A. Review submittals prior to transmittal. The Contractor shall consecutively number all shop drawings and product data transmittals. Resubmittals shall have the number of the previous submittal followed by the suffix "R1, R2, R3, etc." for the revision number of the submittal. The transmittal is to contain the project number and the applicable specification section for each product represented on the transmittal.

B. Apply Contractor's signature to submittals, initialed or signed by authorized person and dated, certifying: review of submittal, verification of products, field measurements and field construction criteria, verification of all dimensions, and coordination of information within submittal with requirements of Work and Contract Documents.

C. Submittals without Contractor's signature or submittals that, in Owner's opinion are incomplete, contain numerous errors, or have not been checked or have only been checked superficially, will be returned without comments. Delays resulting therefrom shall be the Contractor's responsibility.

D. Clearly note proposed deviations from Contract Documents on submittals. Submit listing identifying deviations in a format acceptable to the Owner.

E. Ensure quantities and dimensions shown on submittals comply with the requirements of the Contract Documents.

1.10 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule and in such sequence as to cause no delay in the Work or in the work of any other contractor. Only the Contractor shall make submittals to the Owner.

B. Submit shop drawings, product data and samples for structural, mechanical and electrical items directly to the consulting engineer with a copy of the transmittal letter to the Owner. Upon completion of review, the consulting engineer will send shop drawings, product data and samples to Owner.

C. Submittals are required for all material specified in each Section. If material or equipment is shown on the drawings to be included in this project but is not specified or differs from the material specified, the Contractor shall bring this to the immediate attention of the Owner. Submittals are required for all material and equipment incorporated into this project whether specified or not.

D. The Contractor's attention is called to the Owner's review of Compliance Submittals. This review shall be completed, and the submittal returned to the Contractor before starting installation or fabrication.

E. The Contractor's submission of a compliance submittal constitutes that he has verified and coordinated all dimensional data, quantities, field conditions, catalog data, and compliance

with the specification or he assumes full responsibility for doing so. The Owner's approval of the compliance submittal does not relieve the Contractor of this responsibility.

F. Number of submittals required:
   1. Shop Drawings: Submit electronic copies for mechanical and electrical work.
   2. Product Data: Submit electronic copies.

G. Submittals shall contain:
   1. Date of submission and dates of any previous submissions.
   2. Project title and number.
   3. Contract identification.
   4. The names of:
      a. Contractor.
      b. Supplier.
      c. Manufacturer.
   5. Identification of the product, with the specification section number.
   6. Field dimensions clearly identified as such.
   7. Relation to adjacent or critical features of the Work or materials.
   8. Applicable standards, such as ASTM or Federal Specification numbers.
   9. Identification of deviations from Contract Documents.
   10. Identification of revisions on resubmittals.
   11. Additional information as required by Contract Documents.
   12. An 8 in. x 3 in. blank space for Contractor and Owner stamps.

H. The Contractor's responsibility for any deviations in submittals from the requirements of the Contract Documents is not relieved by the Owner's review of submittals.

I. A numbering system established by the Contractor shall be agreeable to the Owner and the Owner.

1.11 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Owner, revise the number of the submission with the appropriate A, B etc., suffix and resubmit as required until approved.

B. Shop Drawings and Product Data:
   1. Revise initial drawings or data and resubmit as specified for the initial submittal.
   2. Indicate any changes that have been made other than those requested by the Owner.
   3. Revise the number of the submission and resubmit until accepted.

C. Samples: Submit new samples as required for initial submittal. Remove samples which are "rejected" or designated "resubmit."

1.12 OWNER REVIEW RESPONSIBILITIES

A. The Owner shall review submittals with responsible promptness.

B. Affix stamp and initials or signature, and indicate requirements for revisions and resubmittal, if any.

C. Return submittals to Contractor for distribution, or for resubmission within ten (10) working days of original receipt.

D. Submittal Review Action:

1. A – Approved: Indicates information is sufficient in detail and adequately organized for performance of the review. Material conforms to the intended functional requirements of the contract documents and is approved for fabrication, procurement and incorporation into the project as submitted.
2. B – Approved as Noted/No Resubmittal Required: Indicates information submitted is sufficient in detail and adequately organized for performance of the review. Material conforms to the intended functional requirements of the contract documents and is approved for fabrication, procurement and incorporation into the project as noted. The submitted item is not considered by the reviewer to be a critical element of the project and/or noted comments are minimal in quantity and complexity so that no additional review is necessary. Copies with limited marks are acceptable to all parties as permanent record documents.
3. C – Approved as Noted/Resubmit: Indicates information submitted is sufficient in detail and adequately organized for performance of the review. Item generally conforms to the intended functional requirements of the contract documents and is approved for fabrication, procurement and incorporation into the project as noted. Submitted item is not considered by the reviewer to be a critical element of the project but noted comments are sufficient in quantity or complexity so that resubmission is appropriate to assure responsive action, or copies with marks are not acceptable to all parties as permanent record documents. Item must be resubmitted responsive to the reviewers' comments.
4. D – Revise/Resubmit: Indicates information submitted may not be sufficient in detail or adequately organized for performance of the review. Item may appear to conform to the intended functional requirements of the contract documents, but certain elements do not or lack sufficient information to be evaluated. Item is not approved for fabrication, procurement or incorporation into the project. Submitted item is considered by the reviewer to be a critical element of the project and/or noted comments are sufficient in quantity or complexity so that resubmission is necessary to assure acceptable responsive action and conformance with the contract documents. Item must be resubmitted responsive to the reviewers' comments.
5. E – Rejected/Resubmit: Indicates information submitted is not sufficient in detail, is not adequately organized for performance of the review, or does not conform to the intended functional requirements of the contract documents. Item is not approved for fabrication, procurement or incorporation into the project. Item must be resubmitted responsive to the contract documents and reviewers' comments.
6. F – No Action Required: Indicates item has been submitted for informational purposes only and no action response or comments are needed by the reviewer. Item should be retained in project files.
7. G – Not Subject to Review: Indicates submission of item was not required by the contract documents and is not part of the reviewers' contractual project scope. Item is being returned without review or comment.

PART 2 - PRODUCTS

1. Contractor to provide product submittals.

PART 3 - EXECUTION

1. Owner approved project management software must be utilized for all aspects of the project. Preferred software is Procore.

END OF SECTION

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Section 02
Sitework General Provisions

PART 1 - GENERAL

1.01 SUMMARY

A. Sitework includes the furnishing of all labor, material, equipment, tools, supervision, and incidentals for the installation of site improvements as shown on the Contract Drawings and described within the specifications.

1.02 RELATED SECTIONS

A. The General Provisions described herein, together with conditions of the Contract, the general requirements and General Conditions of Division 1, and any Supplementary Conditions in Division 1 apply to work in Division 2.

B. Section 33 52 43.00 - Fuel System General Provisions

1.03 REFERENCES

A. The following listed documents are incorporated into the Contract Documents and shall control the work to the extent described in the individual specification sections. Referenced published standard specifications govern only to the extent of describing a specific item of work, product, material or quality measurement. In the published referenced documents listed in this Article, any references to methods of measurement and basis of payment are not applicable.

B. Standard Specifications published by the following organizations:

1. ANSI - American National Standards Institute
2. ASTM - American Society of Testing Materials
3. AASHTO - American Association of State Highway and Transportation Officials
4. ACI - American Concrete Institute

C. Other standards as referenced in the individual technical sections.

1.04 SYSTEM DESCRIPTION

A. JOB CONDITIONS

1. The Contractor shall inspect in detail the site of the proposed work and familiarize himself with all conditions affecting the execution of the work. The Contractor is responsible for evaluating, assessing, accounting for and including the cost impacts of all existing conditions as they relate to construction performed under this project. No claim for additional compensation or time extensions will be considered for errors resulting from failure or neglect in complying with this requirement.
2. The Contractor can make additional geotechnical investigations at his cost and risk. Prior to making investigations, the Contractor shall obtain permission from the Owner and obtain all permits at the Contractor's expense.
3. Locate existing underground utilities in the areas of work. If utilities are to remain in place either temporarily or permanently, provide adequate means of protection during construction and earthwork operations.

Utilities and existing conditions have been shown on the Contract Documents using the best information available. Actual locations may vary. Protect existing utilities and infrastructure to remain in service. Field verify depth and locations of

existing utilities prior to installation of fuel lines, electrical conduits, other utilities and infrastructure. Notify the Owner's Representative of any discrepancies that potentially affect the plan location, profiles or construction of any work performed under this Contract and obtain direction prior to proceeding. Repair any damaged utilities to remain in service immediately as required or directed by the utility owner, Owner, Engineer, Owner's Representative or other entity having jurisdiction. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation.

1.05 QUALITY ASSURANCE

A. All materials and equipment and each part of detail of the work shall be subject at all times to observation by authorized representatives of the Owner, and inspection by governmental agencies having jurisdiction.

1. Except where existing materials are specifically designated for reuse, all new first-class materials shall be used throughout the work. Use of new products manufactured using salvaged, rusty, damaged, deteriorated or defective material is not acceptable unless approved by the Engineer prior to bidding.

PART 2 - MATERIALS (Part of Submission)

PART 3 – EXECUTION

3.01 PERMITS

A. Except as otherwise noted, the Contractor shall, for work under this Contract, obtain all permits and pay all fees associated therewith.

B. Copies of all permits shall be filed with the Owner.

C. Copies of all permits shall be maintained at the site of the work.

D. No work will be allowed to proceed until the required permits are obtained.

3.02 COOPERATION BETWEEN CONTRACTORS

A. Separate Contracts may be awarded for work within or adjacent to the project site. The Contractor shall conduct his work so as not to interfere with or hinder the progress of work being performed by other contractors.

B. Each Contractor shall assume all liability in connection with his Contract and shall not make claims that may arise because of the presence and operations of other Contractors.

3.03 CONTRACTOR'S RESPONSIBILITY FOR THE WORK

A. The work shall be under the charge and care of the Contractor until accepted. The Contractor shall rebuild, repair, restore and make good, at his expense, all damages to his work occasioned by any cause.

3.04 CLEAN UP

A. The Contractor shall keep the site of the work and adjacent areas free from materials, debris and rubbish as much as possible and shall remove at once if directed by the Owner.

B. Before acceptance of the work, the Contractor shall remove all machinery, equipment, rubbish, barricades and signs, and leave the site in a neat and orderly manner.

3.05 ENVIRONMENTAL CONTROL

A. The Contractor shall comply with all statutes and regulations with respect to control of excessive noise and pollution of the air and water due to his construction operations and shall obtain all permits that may be required by agencies having jurisdiction.

END OF SECTION

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Section 03
Fuel System Coatings

PART 1 - GENERAL

1.01 SUMMARY:

A. The work to be performed in this specification includes the cleaning, preparation, painting, coating, and identification of fuel system piping materials, fuel storage tanks, materials, equipment and components.

B. The preparation and application for the system shall include both field and shop operations.

C. The applicable methods and system identification to be used shall be as follows. Reference the data sheets included in this section for individual systems:

Item	Surface	Application	System
External Coating of Above Ground Piping, Fittings, Equipment, and Tanks (3 Coat System)	Exterior	Field	3
External Coating of Below Ground Piping Joints, Repairs, and Fittings	Exterior	Field	5

1.02 RELATED SECTIONS:

A. Section 01 33 00 - Compliance Submittals

B. Section 01 64 00 - Owner Furnished Equipment

C. Section 33 52 43.00 - Fuel System General Provisions

D. Section 33 52 43.11 - Fuel System Piping Specialties

E. Section 33 52 43.13 - Aviation Fuel Pipe, Fittings, and Installation

F. Section 33 52 43.15 - Fuel System General Valves

G. Section 33 52 43.16 - Aviation Fuel Control Valves

H. Section 33 52 43.28 - Fuel System Filtration

1.03 REFERENCES:

A. American Society of Testing and Materials (ASTM):

1. D4414 - Standard Practice for Measurement of Wet Film Thickness by Notch Gages
2. D4417 - Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel
3. D4541 - Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
4. E337 - Standard Test Method for Measuring Humidity with a Psychrometer

B. American Society of Mechanical Engineers (ASME):

1. A13.1 – Scheme for the Identification of Piping System
2. Z53.1 - Safety Color Code for Marking Physical hazards

C. Energy Institute
   1. EI Standard 1541 - Performance Requirements for Protective Coating Systems Used in Aviation Fuel Storage Tanks and Piping
   2. EI Standard 1542 - Airport Equipment Marking for Fuel Identification
D. National Association of Corrosion Engineers (NACE)
   1. SPO 178 - Design, Fabrication and Surface Finish Practices for Tanks and Vessels in Immersion Service
   2. SPO 188 - Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Surfaces
E. National Fire Protection Association
   1. NFPA 407 - Aircraft Fuel Servicing
   2. NFPA 704 - Standard System for the Identification of the Fire Hazards of Materials for Emergency Response
F. The Society for Protective Coatings
   1. SP-1 - Solvent Cleaning. Removes oil, grease, soil, and other substances. Used with other methods to remove rust, paint and mill scale.
   2. SP-3 - Power Tool Cleaning. Prepares steel surfaces by the use of non-power hand tools.
   3. SP-5 - White Metal Blast Cleaning. Removes all scale, rust, and foreign matter. Leaves surface gray-white uniform metallic color.
   4. SP-6 - Commercial Blast Cleaning. Two-thirds of every 9 square inches free of all visible residues, remainder only light discoloration.
   5. SP-7 - Brush-Off Blast Cleaning. Removes only loose material, remaining surface tight and abraded to give anchor.
   6. SP-10 - Near White Blast Cleaning. At least 95% of every 9 square inches shall be free of all visible residues.
   7. SP-11 - Power Tool Cleaning to Bare Metal
   8. PA-1 - Shop, Field, and Maintenance Coating of Metals
   9. PA-2 - Dry Film Thickness Measurement with Magnetic Gauges

1.04 SUBMITTALS:

A. Submit as specified in Section 01 33 00 - Compliance Submittals.
B. Product Data
   1. Technical Data Sheets including product manufacturer, name of coating, and number designation of coating, etc.
   2. Material safety data sheets
   3. Color charts for selection of paint color by the Owner.
   4. Catalog cuts and samples of the piping and equipment labels
C. Shop Drawings
   1. Submit a drawing that clearly indicates the proposed location of piping labels.
D. Instructions
   1. Method of application and the minimum and maximum dry film thickness of coating (per coat) to be applied.
E. Quality Assurance
   1. Test Reports
      a. Third party NACE Certified testing agency and their graphical report indicating test

locations and results.

2. Certifications
    a. Certification from the manufacturer that the unthinned maximum VOC content of the field applied coating products is below the maximum allowable for the project location.

1.05 QUALITY ASSURANCE:

A. The coating applicator for field operations or for shop operations shall have a minimum of 5 years of experience in the Systems specified. The coating applicator shall certify in writing that he has previous experience applying all of the coating systems in this specification for which he is responsible.

B. Contractor shall provide full internal scaffolding system with full floor to access the tank rafters. Contractor shall provide full external scaffolding system. Contractor shall tent the exterior to allow for blasting and coating in all weather conditions. Contractor shall provide heat and dehumidification for coating tank interior and exterior.

C. Compliance submittals and certification of experience shall be submitted to the Engineer prior to starting the work.

D. The coating applicator shall provide a certificate of quality control procedures utilized during application of internal and external coatings. The certification shall include surface preparation, film thickness per coat, curing procedures, and holiday testing.

E. The coating manufacturer shall certify that the internal pipe coating used in all fuel contact locations is compatible for submersible use in Glycol, Jet-A, Mogas, and Diesel Fuel.

F. Piping and equipment labels shall comply with listed codes and standards for color coding, lettering size, and length of color field.

G. Contractor shall submit painting sequence for the preparation and application of all coating systems. Contractor shall ensure painting sequence does not contaminate or overspray existing and/or newly painted equipment.

H. Contractor shall ensure that all newly painted surfaces remain clean and are not contaminated by subsequent blasting and painting operations. Contractor shall clean and/or recoat surfaces deemed not acceptable due to product contamination at no cost to the Owner.

I. Coating Inspection
    1. Contractor shall employ the services of a third-party NACE Certified testing agency to perform all QC requirements.
    2. Inspector shall inspect the surface preparation, perform all wet film and dry film thickness testing on all shop and field applied coatings. Contractor shall submit to the Engineer the proposed testing agency for approval.
    3. Inspectors shall record ambient temperature, humidity, and surface temperature.
    4. Inspect dry film for holidays, runs and sags.
    5. Inspector shall complete a daily inspection report similar to the sample report at the end of this section.

PART 2 - MATERIALS

2.01 SYSTEM TABLES:

A. System tables for interior and exterior coatings are included within this specification to indicate the degree of preparation, methods of application, finish thickness, manufacturer names and product numbers. This specification addresses coatings for components and materials for the fuel systems.

2.02 IDENTIFICATION OF PIPING:

A. The identification of fuel system piping shall be through a combination of pressure sensitive labels, bands and flow arrows. Pipe labels shall be as detailed. The materials shall be manufactured by Gammon Technical Products, W.H. Brady, Seton Corp. or approved equal and shall conform to ASME A13.1.

B. Legend designations for all fuels shall be in accordance with EI 1542.

C. Flow arrows shall be coordinated with pipe size conforming to ASME A13.1 and shall be of the same color code as stated in EI 1542 for the corresponding fuel.

2.03 IDENTIFICATION OF EQUIPMENT AND TANKS:

A. Pressure sensitive labels or stenciling with paint shall be used for the identification of equipment. If paint is used, it shall conform to these specifications.

B. Equipment to be identified shall be as follows:

1. Filter vessels and sump separators – 3 inches high in two locations. Identification shall include the number that corresponds to the P&ID and the control system screens. Filter vessels shall have a decal stating “Filter Change Due” with a space for filling in dates.
2. Pumps – 3 inches high in two locations. Identification shall include the number that corresponds to the P&ID and the control system screens.

C. Tanks to be identified shall be as follows:

1. Tanks shall have a decal stating “Tank Last Cleaned On” with a space for filling in dates. Decal shall be placed on the tank shell adjacent to the bottom of the stairs. Lettering shall be 1 inch (25 mm) high.
2. Vertical fuel storage tanks – 12 inches high in four locations (one label per quadrant). Identification shall include the number that corresponds to the P&ID and the control system screens, product type and useable volume in gallons. Labels shall have a black background with white letters and shall read: Example below.
3. Horizontal fuel storage tanks – 4 inches high in four locations (one label per quadrant). Identification shall include the number that corresponds to the P&ID and the control system screens, product type and useable volume in gallons (litres). Example below.
4. Tank Sump Separators shall have a decal stating “Volume of Tank Drain Piping _____ Gallons”. Volume shall include all drawoff piping from sump separator to tank sump.
5. Tanks shall have a 4” high black lettering decal stating” FLAMMABLE” AND “NO SMOKING”
6. Tanks shall have a hazardous materials identification marker located on four sides in accordance with NFPA 704. Place label directly beneath JET-A , TANK NO. label. For Jet-A, the Health Signal shall be blue and shall be “1”, the Flammability Signal shall be red and shall be “2”,and the Reactivity Signal shall be yellow and shall be “0”. Numbers shall be 3” high to be legible from 100 feet.

D. Valves color shall be as listed in system tables.

PART 3 - EXECUTION

3.01 EXTERNAL COATING OF ABOVE GROUND PIPING, FITTINGS, EQUIPMENT AND TANKS (3 COAT SYSTEM):

A. Reference System 3 of the attached tables.

B. All pipe, fittings and equipment which are installed above ground shall be given a protective covering applied with equipment especially designed for this purpose. Before the coating is applied, the surface of the pipe, fittings and equipment shall be thoroughly cleaned of all rust, scale, oil, grease and other matter that will interfere with the proper adhesion of the primer coat. Those pieces of equipment, valves, pumps, motors, actuators, etc that have been shop primed or delivered to the site with a finish coat shall be properly prepared for application of the coating. Contractor shall coordinate with the equipment suppliers and the coating manufacturer on the proper preparation and application of the coating. Provide certification from coating supplier that the systems are compatible.

C. The surfaces to be painted shall be abrasive blasted immediately before applying the prime coat. Remove all surface irregularities such as burrs, weld splatter, etc., before proceeding with blasting. Blasting shall be in strict accordance with The Society for Protective Coatings Surface Preparation Specification. Care shall be taken to prevent grease, oil or other organic matter from contacting the blasted surface prior to application of the prime coat. Blasting shall be coordinated with primer application, which shall be applied as soon as possible after blasting. If the blasted surface does not meet the specified standard prior to primer application, it shall be re-blasted. If the blasted surface remains uncoated overnight, it shall be reblasted. Remove all traces of blast products from surfaces, pockets and corners to be painted by brushing with clean brushes, by blowing with clean dry air, or by vacuum cleaning.

D. External welds shall be spot blasted to the original specified standard with a profile suitable to manufacturer's recommendation for product used. A stripe coat shall be applied on the third coat.

E. All fieldwork shall be done in a manner and with materials that will produce a covering equal in effectiveness to that of the factory applied coating.

F. Prepare the surface as specified, defined and remove any loose rust, scale, dust or dirt. Oil and grease are to be removed with suitable solvent. All field-applied coatings shall conform to the contour of the pipe or fitting leaving no moisture traps between or under the coating.

G. **ALL** equipment labels, data plates, control tubing, pressure gauges, etc., shall be masked prior to painting adjacent piping. If these items are painted, the Contractor shall clean them to the satisfaction of the Owner or replace them at no cost to the Owner.

H. Coatings shall be a three (3) coat system with a reinforced inorganic zinc primer, a high build epoxy second coat, and an aliphatic polyurethane UV Stable topcoat applied in accordance with the manufacturer's written instructions and SSPC PA-1. The total dry film thickness of the paint shall be within the range recommended by the manufacturer. The temperature of the blasted steel shall be a minimum of 5 degrees F (3 degrees C) above the dew point. Surface temperatures shall not be below 50 degrees F (10 degrees C) unless otherwise specified by manufacturer's data sheet and the relative humidity shall be no greater than 85 percent during coating application measured according to ASTM E-337. Provide heaters and

dehumidification as required by conditions to maintain coating schedule. For those surfaces that are shop primed only and then erected with the tank, the recoat window time will have elapsed. Contractor shall prep the surface per System 2 prior to the second and finish coats being applied.

I. Dry film thickness shall be spot checked per SSPC PA-2 at a Restriction Level 3 on the coated surfaces after each coat has been applied and has cured. Pipe reading procedure shall follow SSPC PA-2 Appendix 7. If film thickness is not found to be uniform and to specification by the Inspector, the Contractor shall be required to apply additional coats at no cost to the Owner until the specified film thickness has been obtained. If the dry film thickness exceeds the maximum allowable film thickness per the manufacturer, the Contractor shall remove and reapply the coating in those areas at no cost to the Owner. Dry film thickness is to be checked by the Contractor at his expense by a third-party NACE certified coating inspector according to SSPC PA-2.

J. If, in the opinion of the Engineer or NACE inspector the coatings show ridges, waves, runs, orange peeling, or holidays indicating uneven coverage or improper application, the Contractor shall be required to remove and re-apply the coating at no cost to the Owner.

3.02 EXTERNAL COATING OF BELOW GROUND PIPING JOINTS, REPAIRS, AND FITTINGS:

A. Reference System 5 of the attached tables.

B. Joint coatings for piping to be pressure tested shall be applied after testing and acceptance.

C. All below ground piping shall be holiday tested on site prior to pipe burial according to NACE SP 0188. Coating shall be repaired per System 5.

D. Application shall be in accordance with manufacturer's published instructions.

E. Coating of pipe to be buried, shall include welded joint connections.

3.03 PIPING AND EQUIPMENT IDENTIFICATION:

A. Clean area of surface to receive label or other pressure-sensitive item free of oil, grease, dust, dirt, or other substances that would affect adhesion.

B. On painted surfaces, install label only after coating system is complete and dry film thickness testing completed and accepted.

C. Use proper label type suitable for interior or exterior location as applicable.

D. Locate labels on piping near connections to equipment, adjacent to valves or fittings, and at intervals not to exceed 25 feet (8 m). Final location shall be determined by Owner and Engineer.

E. For piping with arrows to indicate direction of flow, place arrows adjacent to or below labels, depending upon visibility. For dual-flow piping, indicate both directions.

F. Locate legends and labels so as to be visible from normal line of vision above finished floor or grade level.

3.04 PROTECTION:

A. Cover and protect all surfaces that are not to be painted which are in close proximity to the painting operation. Remove all protective materials when appropriate and before materials such as masking tape becomes difficult to remove.

B. Provide signs to indicate fresh paint areas.

C. Mask, remove, or otherwise protect finish hardware, control tubing, pressure gauges, control

devices, and equipment nameplates as necessary. Provide cover to prevent paints from entering orifices in electrical or mechanical equipment.

D. Provide daily cleanup of both storage and working areas and removal of all paint refuse, trash, rags, thinners, etc. Dispose of leftover containers, thinners, rags, brushes, rollers, etc. in accordance with applicable regulations.

3.05 CLEANING:

A. Touch up and restore damaged finishes to original condition as required. Remove all masking tape residue and glues that may be left on surfaces.

B. Remove spilled, dripped or splattered paint from all surfaces.

3.06 COATING REPAIRS:

A. Repair all damages to pipe coating systems before the piping is holiday tested. This includes all cuts, breaks, voids, bruised or scarred spots, or other damage caused prior to delivery, or resulting from handling or installation of the pipe, or from any cause whatsoever.

B. Included also are damaged coatings where new connections are made to existing coated pipes or where existing coated pipes are uncovered or exposed for any reason.

C. Also repair the coating where welds are made and where damaged or broken by the installation of instrumentation or other accessories or appurtenances.

D. Repair all holidays detected during inspection of coatings. Use the same coatings for repair as was used for the base coating.

3.07 INSPECTION:

A. Contractor shall employ the services of a third-party NACE certified coating inspector. Inspector shall provide daily reports of environmental conditions including ambient temperature, substrate temperature, relative humidity, and wind speed direction.

B. Surface profile shall be tested using ASTM D4417 Replica tape. Ensure correct mil range tape is used. Include with daily reports.

C. Prior to coating but post blasting, ensure all dust is removed. Use clear cellophane tape to determine the amount of dust from abrasive blasting and other sources has not been removed. Press the tape on the surface, peel off, and visually observe the amount of dust that sticks to the tape. Clean the test area with acetone or alcohol to remove tape adhesive from prepared surface. The test tape showing the dust particles shall be documented by applying it to the daily inspection report.

D. Use wet film gauges to check each application per ISO 2808 at a maximum interval of 15 minutes in order to correct low or heavy film build immediately.

E. Use dry film gauge to check each coat when dry, and the total system when completed.

F. Use holiday or pinhole detector to detect and correct voids when indicated on system sheet according to NACE SP0188.

COATING DAILY INSPECTION REPORT					1 of 2
Project:				Date:	
Feature:				Report By:	
Contract No:		Paint Contractor:			
SPECIFICATIONS	Tabulation No: _____	Item to be Coated: _____			
Coating Category: _____	Total DFT (min.): _____ mils	Tab Surface Prep. Method: _____			
Coat No.	Material Manufacturer	Product Name	DFT Range		
Primer:					
Intermediate:					
Topcoat:					
WEATHER	Reading Time:				
1. Substrate Temperature (degrees F):					
2. Ambient (Dry Bulb) Temp. (degrees F):					
3. Wet Bulb Temperature (degrees F):					
4. Relative Humidity (percentage):					
5. Dew Point Temperature (degrees F):					
6. Item (1) minus (2) (in degrees F):					
7. Wind (mph) and Direction:					
Comments:					
SURFACE PREPARATION	Surface Preparation Method Used:	SSPC-SP _____ / NACE No. _____			
Abrasives: Manufacturer: _____	Product Name: _____	Class A, Type _____			
Contaminants (ASTM D 4940): Fines __ yes / __ no; Oil __ yes / __ no; pH ____; Conductivity_____					
Chloride Specific Ion: Test Method Used _____; Results _____					
Compressor Air: Type: _____	_____ CFM	Passes ASTM D 4285: ___ yes / ___ no			
Surface Profile (NACE RP 0287): No. Measurements Taken _____; Averaged Measured _____ mils					
Cleanliness: Chloride Specific Ion: Test Method Used _____ _; Results _____					
Visual Standards (SSPC/NACE): VIS 1 __ yes / __ no; VIS 2 __ yes / __ no; VIS 4 (I) __ yes / __ no					

COATING DAILY INSPECTION REPORT	2 of 2

APPLICATION AND MATERIALS

Manufacturer	Product Name	Batch Number	Gal	Color	Thinner Product	Thinner Gal/Oz %

Environmental Control: Heaters ___ yes / ___ no; Dehumidification ___ yes / ___ no, Unit Size _____

Material Mixing: Power Mixing Time _____ minutes; Induction Time ___ yes / ___ no, _____ minutes

Stripe Coats Applied: ___ yes / ___ no; Method: ___ Bush/Roller ___ Spray

Application Method: ___ Brush; ___ Roller; ___ Airless; ___ Conventional; ___ Plural; ___ Electrostatic

Applied Within Recoat Window: Primer __ yes /__ no; Intermediate __ yes /__ no; Topcoat __ yes /__ no

Wet Film Thickness (WFT): Primer _____ mils; Intermediate _____ mils; Topcoat _____ mils

Comments:

TESTING OF HARDENED COATING

Dry Film Thickness (DFT) by SSPC-SP PA2:

Area Inspected: ___ less than 300 ft^2; ___ less than 1,000 ft^2; ___ equal to or greater than 1,000 ft^2

Number of 5 Spot Measurement Groups Taken Within Above Inspected Area: _____ at _____ 100 ft^2 areas

Average of 5 Spot Measurement Groups _____ mils; Conform to Specifications ___yes /___no

Discontinuity (Holiday) Testing by NACE RP 0188

Tester Used: _____ Low Voltage (Sponge) _____ High Voltage

Set at _____ volts; Number of Defects Found _____; Defects Repaired ___ yes / ___ no

Comments:

3.08 COATING TABLES

FUEL SYSTEM COATINGS SYSTEM - 1

SERVICE: Internal Coating of Piping, Fittings, Tanks, and Equipment

Surface Preparation: SSPC-SP 10 to a profile depth recommended by product manufacturer.

First Coat: Multi-purpose, jet-fuel resistant, epoxy coating. Apply at a rate to meet the manufacturer's recommended dry film thickness. Do not exceed the maximum dry film thickness as published by the manufacturer. Wipe coating 2" from end of pipe.

Second Coat: Same as first coat except color shall be different that first coat to distinguish between coats. Second coat shall be white, light gray, or beige for light reflectance and to facilitate inspection. Wipe coating 2" from end of pipe.

Third Coat: Not required.

System Total: System total shall meet the recommended dry film thickness.

Volatile Organic Content: Shall meet all state and local regulations.

Manufacturer	First Coat	Touch Up	Second Coat	Third Coat
International Paint LLC.	Interline 850	N/A	Interline 850	N/A
Tnemec	Tneme-Liner Series 61	N/A	Tneme-Liner Series 61	N/A
US Coatings	GripLine 6520	N/A	GripLine 6520	N/A

Notes:

1. Upon completion, check for voids with a suitable electric holiday detection operating at the proper voltage as recommended by the manufacturer. Repair all holidays.
2. Stainless steel valves, piping, fittings, etc. shall not be coated.

FUEL SYSTEM COATINGS SYSTEM - 3

SERVICE: External Coating of Above Ground Piping, Fittings, Equipment, and Tanks (3 Coat System)

Surface Preparation: SSPC-SP 6 to a profile depth recommended by product manufacturer. In lieu of media blasting, a rotary bristle blasting process may be used. Metal surface to be coated shall be cleaned to SSPC SP-11 with a profile as required by the coating manufacturer.

First Coat: Inorganic Zinc Primer

Second Coat: High build, high solids epoxy. Apply at a rate to meet the manufacturer's recommended dry film thickness. Do not exceed the maximum dry film thickness as published by the manufacturer.

Third Coat: High build, high solids polyurethane. Gloss shall be no greater than 35 gloss units (measured at an angle of 60 degrees). Apply at a rate to meet the manufacturer's recommended dry film thickness. Do not exceed the maximum dry film thickness as published by the manufacturer.

System Total: System total shall meet the recommended dry film thickness.

Volatile Organic Content: Shall meet all state and local regulations.

Manufacturer	First Coat	Touch Up	Second Coat	Third Coat
PPG	Dimetcote 9 / Sigmazinc 9	Same as first coat	Amerlock 2 /400 (Note 4)	Pitthane Ultra L S
Tnemec	94-H2O	Same as first coat	Series L69	Series 1095
International Paint LLC.	Interzinc 52	Same as first coat	Intergard 251HS	White Colors: Interthane 870UHS Non-White Colors: Interfine 979

Notes:

1. Gloss or high gloss will not be acceptable.
2. Top color shall be white for all piping, equipment, and tanks. For all carbon steel manual (butterfly, ball, check, plug, etc.) and control valves, the top color shall be black for Jet-A

service and shall be royal blue for Avgas service per EI 1542. Fire pipe shall be red.
3. Stainless steel valves, piping, fittings, etc. shall not be coated. All electrical equipment and conduit shall not be coated.
4. For application during colder weather, down to 32F, Amerlock 2 should be used. For application during warm weather, Amerlock 400 should be used, Adhere to coating manufacturer's requirements.

FUEL SYSTEM COATINGS SYSTEM - 5

SERVICE: External Coating of Below Ground Piping Joints, Repairs, and Fittings

Surface Preparation: Cleanliness: Near White; Standards: SSPC-SP 10. Sweep blasting is required if the maximum recoat window is exceeded. Holiday repairs shall be sanded with 80 grit carborundum cloth. All dust from sanding or blast roughening shall be removed from the surface prior to the application of coating.
Profile: 2.5 mils minimum to 5.0 mils maximum.

First Coat: Apply Brush Grade with brush or roller. Apply without runs, drips or sags.

Second Coat: Not Required.

Third Coat: Not required.

System Total: 20 mils minimum to 50 mils maximum (single coat).

Inspection: Check for voids with an electronic holiday detector.

Manufacturer	First Coat	Touch Up	Second Coat	Third Coat
Special Polymer Coatings	SP-2888	N/A	N/A	N/A
Denso (see note 1)	Protal 7200	N/A	N/A	N/A
Chase Corporation	TC 7100	N/A	N/A	N/A
3M	Scotchkote 323+	N/A	N/A	N/A
PPG	Amercoat 240	N/A	N/A	N/A

Notes:

1. Denso may only be used when abrasive blasting is not allowed. Contractor shall receive written approval from the Owner prior to submitting Denso product. Contractor shall perform surface preparation to SP-11 Power Tool Cleaning to Bare Metal. Profile roughness shall be a minimum of 1.0 mil as measured in accordance with Method C of ASTM D4417.

END OF SECTION

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Section 4
Fuel System General Provisions

PART 1 - GENERAL

1.01 SUMMARY:

A. Work in this section includes furnishing all materials, labor and supervision necessary for the re-construction of the Glycol, Jet Fuel, Mogas, and Diesel storage and distribution systems The work shall include all pipe, fittings, valves, tanks, appurtenances, pumps, filters, meters, dispensers, and activities as specified herein and shown on the drawings. All testing, inspection and flushing shall be provided as specified to provide a complete and operational system.

B. All permits and licenses that are required by governing authorities for the performance of work shall be procured and paid for by the Contractor.

C. The work will be completed during normal operating hours and conditions unless otherwise specified. Staging of construction activities is required.

1.02 RELATED SECTIONS

A. Section 01 64 00 - Owner Furnished Equipment
B. Section 33 52 43.11 - Fuel System Piping Specialties
C. Section 33 52 43.13 - Aviation Fuel Pipe, Fittings, and Installation
D. Section 33 52 43.15 - Fuel System General Valves
E. Section 33 52 43.16 - Aviation Fuel Control Valves
F. Section 33 52 43.28 - Fuel System Filtration

1.03 REFERENCES:

A. Refer to each individual section in this division for a list of applicable references from each of the following organizations:
   1. American Petroleum Institute (API):
   2. National Fire Protection Association (NFPA):
   3. Underwriters Laboratories (UL):
   4. American Society of Mechanical Engineers (ASME):
      a. B31.3 - Process Piping
   5. American Society for Testing and Materials (ASTM):
   6. American National Standards Institute (ANSI):
   7. Factory Mutual Engineering Division (FM):
   8. Industrial Risk Insurance (IRI):
   9. Military Specifications (Mil):
   10. Petroleum Equipment Industry (PEI):
   11. Occupational Safety and Health Administration (OSHA):

1.04 DEFINITIONS:

A. “Piping” includes in addition to pipe, all fittings, valves, sleeves, hangers, and other supports and accessories related to such piping. The definition of 'piping' is limited to the distribution of fluids and does not include structural elements for tanks and their appurtenances.

B. The words “furnish and install”, “provide”, “furnish”, and “install” are used to mean the

Contractor shall furnish and completely install the system, service, equipment, or material named along with other associated devices, equipment, material, wiring, piping, etc. as required. The system shall be a complete operating installation, and shall conform to the codes, standards and guidelines applicable to this type of project.

C. It is the intent of the specifications and drawings to call for finished work, tested and ready for operation.

1. All apparatus, appliances, materials, or work not shown on drawings but mentioned in specifications, or vice versa, and/or all incidental accessories necessary to make work complete and ready for operation, even though not specified or shown on drawings, shall be furnished and installed without increase in contract price.
2. Should there be discrepancies or questions of intent, refer matter to the Owner in writing for a decision before ordering any equipment or materials or before starting any related work.

1.05 SUBMITTALS:

A. Compliance submittals shall be processed in accordance with 01 33 00 - Compliance Submittals.

B. Submittals are required for **all** material specified in this Division. If material or equipment is shown on the drawings to be included in this project but is not specified, the Contractor shall bring this to the immediate attention of the Engineer. Submittals are required for all material and equipment incorporated into this project whether specified or not.

C. The Contractor's attention is called to the Engineer's review of Compliance Submittals. This review shall be completed, and the submittal returned to the Contractor before starting procurement, installation or fabrication.

D. The Contractor's submission of a compliance submittal constitutes that he has both verified and coordinated all dimensional data, quantities, field conditions, catalog data, and compliance with the specification or he assumes full responsibility for doing so.

E. Compliance Submittals shall include all components and units of fabrication specified in the issued work directives:

F. Submittal Formats are as follows:

1. Product Information: Submit manufacturer's data sheets identifying equipment size, descriptions, materials, ratings, etc.
2. Drawings: Submit drawings which graphically show relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.
3. Instructions: Preprinted material describing installation of a product, system or material, including special notices and material safety data sheet, if any, concerning impedance, hazards and safety precautions.
4. Statements: A document required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier Contractor. The purpose of which is to confirm the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications or other verifications of quality.
5. Reports: Reports of inspections or tests, including analysis and interpretation of test

results. Each report shall be properly identified. Test methods used shall be identified and test results shall be recorded.

6. Certificates: Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of this contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements that are being certified.
7. Records: Documentation to record compliance with technical or administrative requirements.

1.06 QUALITY ASSURANCE:

A. Minimum Qualifications for Aviation Fuel Distribution System Contractor: All Aviation Fuel Distribution System work as outlined in this section and any related sections shall be completed by a contractor and/or subcontractor who:
   1. Has been involved in the construction of aviation fueling industry projects for a minimum of five (5) years.
   2. Has successfully completed three (3) projects similar in complexity and scope within the last five (5) years. The projects shall include working with internally coated piping, equipment replacement, and recoating of existing system components. The contractor shall provide references on these projects to include contact name, phone number and organization.

B. Materials and equipment shall be new, unused, and shall bear manufacture's name, model number, and other identification marking.

C. Materials and equipment shall be standard product of manufacturer regularly engaged in the production of required type of material or equipment for at least 5 years (unless specifically exempted by Engineer in writing) and shall be manufacturer's latest design having published properties.

D. Equipment shall have been in satisfactory commercial service for 2 years prior to bid opening unless specified by model # and manufacturer.

E. If more than one unit of the same type of equipment is required, (i.e., control valves, manual valves, etc.) they shall be products of a single manufacturer.

F. All equipment, materials, components, coatings, and accessories provided shall be suitable for use with the specific fuel type being used in the system. The following table is provided to indicate the basic design conditions of the components:

SERVICE	PRESSURE	TEMPERATURE	SPECIFIC GRAVITY
Jet Fuel (ANSI 150 lb)	275 psig	-20 to 110 degrees F	0.81 +/- 0.05
Jet Fuel (ANSI 300 lb)	550 psig	-20 to 110 degrees F	0.81 +/- 0.05
Mogas	275 psig	-20 to 110 degrees F	0.73 +/- 0.03
Diesel	275 psig	-20 to 110 degrees F	0.84 +/- 0.05

G. The Contractor is responsible for protecting all equipment and material from loss or damage until the system is completed and accepted by the Owner.

H. All portions of equipment coming in contact with Jet A shall be free of copper, brass, bronze

or zinc material. Aluminum is not allowed unless specified otherwise. All trim shall be stainless steel.

I. The Contractor shall be responsible for coordinating with the manufacturer for installation of the equipment furnished. The Contractor shall be responsible for warranty work required and shall coordinate with the manufacturer of the equipment to accomplish warranty work including any labor and additional cost for such warranty work. The equipment manufacturer shall provide the Contractor with installation manuals and instructions. The Contractor shall receive and install this equipment for a complete furnished and installed installation including all accessories as specified within these specifications and as shown on drawings.

J. The Contractor shall check equipment delivered to job site by the equipment supplier against approved Compliance Submittals or other required documentation. The Contractor shall report all discrepancies, shortages, or lack of data to the Owner and equipment supplier for adjustments within one week after equipment is received. If such report is not made within one week, it shall be assumed no discrepancies, shortages, or lack of data has been found.

K. Contractor shall provide the following for all equipment furnished:
   1. All rough-ins for equipment and accessories.
   2. Installation of loose trim provided with equipment by the equipment supplier.
   3. Furnish and install all piping connections, valves, unions, control valves, drains, and other accessories as indicated on the plans and as specified here within these documents.

L. The products of specific manufacturers have been used as the basis of design. Any changes to the structure, piping, controls, and electrical connections that result from the use of other manufacturers shall be coordinated with all other trades by the Contractor and approved in writing on letterhead by the Engineer before the ordering of the equipment from the manufacturer. Any resultant modifications required shall be performed without incurring additions to the contract price.

M. The bid shall be based **only** on products specified. The Contractor shall verify delivery dates for timeliness before submitting his bid. Desired product substitutions shall be brought to the Engineer's attention prior to bidding. No consideration shall be given to substitutions after bids are received.

N. Unless this Contractor states in writing at the time of pricing any and all exclusions to these specifications or drawings in his bid proposal, this Contractor shall furnish and install at the job site the equipment, material, labor and services as specified herein and shown on the drawings for the amount of his bid.

1.07 DRAWINGS:

A. Drawings are diagrammatic and indicate the general arrangement of systems and work included in the contract. Drawings are not to be scaled. All drawings and details shall be examined and coordinated by the Contractor to establish exact location of piping and equipment. Where conflicts occur, the Contractor shall inform the Owner immediately.

B. The Contractor shall follow all contract drawings in laying out work and shall check shop drawings of other trades to verify spaces in which work will be installed.

1.08 MAINTENANCE MANUALS:

A. In addition to the requirements specified in the General Conditions, at the project's

completion, the Contractor shall submit a complete system Operating and Maintenance Manual (O&M). The manual at a minimum shall include the following:

1. The manual shall be composed of typed instruction sheets with large drawing sheets (not reduced) folded in with reinforced margin. It shall have a post binder system so that the sheets can be easily substituted and shall have a hard cover.
2. The manual shall be organized into systems and shall contain the manufacturer's complete detailed operating and maintenance instructions with data sheets for each piece of equipment furnished under this project.
3. Include a spare parts list for each major piece of equipment furnished for the project including but not limited to:
   a. Pumps
   b. Control Valves
   c. Filters
   d. Manual Valves
   e. Meters
   f. Isolation Valves
4. Provide a comprehensive list of maintenance procedures for preventative maintenance and troubleshooting; repair and reassembly, aligning and adjusting, and disassembly.

1.09 NAMEPLATES:

A. All major equipment items shall have a permanent, stamped metal, nameplate. The nameplate shall be permanently attached to the equipment in a manner such that it does not hinder the operation of the equipment. All nameplates shall be protected from overspray during field painting operations. Nameplates shall generally include the applicable items in the following list:
   1. Manufacturer's Size and Type
   2. Serial Number
   3. Design Capacity
   4. Design Pressure
   5. Design Temperature
   6. Code Conformance

1.10 CODE REQUIREMENTS AND PERMITS:

A. All work indicated on the contract drawings and herein specified shall conform to all applicable codes or laws of the State of New York and any other governmental bodies having jurisdiction and shall be installed to the satisfaction of the inspecting authority.

B. Any deviations from the contract documents or specifications required for conformance with the applicable codes or laws shall be made without change in contract price, but not until such deviations have been brought to the attention of, and approved in writing, by the Engineer.

C. The applicable codes and laws shall govern the minimum requirements only. Where the drawings or specifications call for materials, construction limitations, or other similar requirements in excess of the code requirements, the drawings and specifications shall

be followed.

D. The Contractor shall obtain and pay for permits and licenses, and shall pay all fees and taxes and give all notices bearing on the conduct of the work as drawn and specified. Certificates of compliance, approval, or acceptance from all authorities having jurisdiction over the work shall be obtained and delivered to the Owner.

E. All work indicated on the drawings and herein specified shall conform with all applicable standards of the National Fire Protection Association, American Petroleum Institute, Energy Institute, American National Standards Institute and American Society for Testing and Materials.

F. All work indicated on the drawings, and herein specified, or tasks required in the performance of the work but not specifically indicated in the drawing or specifications, shall conform with the applicable requirements of the Occupational Safety and Health Administration (OSHA) as provided in 29 CFR. Applicable requirements include, but are not limited to, Part 1910 – Occupational Safety and Health Standards and Part 1926 – Safety and Health Regulations for Construction.

G. All equipment, materials, and specialties shall be installed and connected in accordance with the best engineering practice and standards for this type of work. Unless otherwise specified or shown on the drawings, the recommendations and instructions of the manufacturer shall be

followed for installing the work.

H. The Contractor shall promptly notify the Owner in writing, of any instances in the specifications or on the drawings that are in conflict with any of the aforementioned authorities so that any required changes shall be adjusted before the contract is awarded. If the Contractor performs any work contrary to such laws, rules, regulations or recommendations, without notice, he shall bear all cost arising therefrom.

PART 2 - PRODUCTS – Part of Submission

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION:

A. Contractor shall be responsible for the safety and protection from loss or damage of all equipment and material received until all the work under this contract is complete and the Contractor has received final acceptance. Protect all equipment and material during storage and prior to start-up, which shall include the coverings of all openings, protection against rust and other damage, etc.

B. For all industrial control panels as defined by Article 100 and Article 409 of the NEC, determine the short circuit current ratings (SCCRs) in accordance with UL 508A. All industrial control panels shall be labeled with their SCCR in accordance with NEC Article 509 and UL 508A. Submit, with all equipment product data, each applicable equipment item's SCCR.

C. Contractor shall ensure that all equipment installed as part of this contract shall be properly aligned, adjusted and lubricated before final acceptance.

D. Contractor shall spot paint all equipment where the shop paint has been damaged or flaked off.

E. Furnish all bolts, studs, nuts and gaskets for makeup of all connections to the equipment and replace all gaskets, bolts and fasteners damaged or as directed during the flushing

process.

F. All connections to equipment shall be made with socket welds, unions or flanges.

G. Removed or Abandoned piping: Contractor shall install a weld cap or blind on any open end of piping that is decommissioned but not yet removed or otherwise abandoned at the end of each work shift.

3.02 REQUIREMENTS:

A. Mechanical and electrical designs are based on the requirements for the specified manufacturers listed in the equipment specification. Conduit sizes are selected on the basis of specified equipment. Increased manufacturers requirements necessitating piping changes, additional power conductors, controls, foundations, etc., or any changes required to accommodate any alternate or substitute manufacturer's equipment, other than as shown on drawings shall be provided without any increase in contract price by Contractor.

B. Manufacturers, where specifically called for, must provide factory tests, unit installation observations, unit start-up and tests, etc., as specified. Signed reports shall be submitted to the Owner upon completion of these services. Subletting of these services will not be permitted. Compliance Submittals shall be accompanied with a letter of certification by the manufacturer that the specified services shall be provided. Failure to do so shall be cause to reject the Compliance Submittals.

C. The Contract Drawings are in part schematic, intended to convey the scope of work and indicate the general layout, design, and arrangement. The Contractor shall follow these drawings in the layout of his work and shall consult general construction drawings, electrical drawings, and all other drawings for this project. Contractor shall verify all existing site conditions to determine all conditions affecting the work shown or specified. The Contract Drawings are not to be scaled and the Contractor shall verify areas in which the work is to be installed.

D. Follow drawings in laying out work, check drawings of other trades to verify spaces in which work will be installed, and maintain maximum space conditions at all points. Where space conditions appear inadequate, Owner shall be notified before proceeding with installation.

E. All work shall be performed by trained personnel of the particular trade involved and shall be done in neat and workman like manner as approved by the Owner.

1. Work shall be performed in cooperation with other trades and scheduled to allow timely and efficient completion of project.
2. Furnish other trades advance information on locations and sizes of frames, boxes, sleeves and openings needed for work. Also furnish information and shop drawings necessary to permit other trades affected to install their work properly without delay.
3. Where there is evidence that work of one trade will interfere with work of other trades, all trades shall assist in working out space conditions to make satisfactory adjustments.

F. Work installed before coordinating with other trades causing interference with work of such other trades shall be changed to correct such condition without increase in contract price and as directed by the Owner.

G. Where specific details and dimensions are not shown on the drawings, the Contractor shall take measurements and make layouts as required for the proper installation of the work and for coordination with all other work on the project. In case of any discrepancies between the

drawings and the specifications, it shall be assumed by the signing of the Contract that the higher cost (if any difference in costs) is included in the contract price. The Contractor shall perform the work in accordance with the drawings or with the specifications, as determined and approved by the Owner.

H. The Contractor shall be responsible for a scheduled sequence in performing the work so that it will not interfere with the Owner's operation. Before any work is started, the Contractor shall consult with the Owner and arrange a satisfactory schedule.
   1. Make temporary alterations as required to execute the work so that all operations and services are maintained with the minimum possible interruption.
   2. Temporary shutdowns shall be segregated and shall be of the shortest possible duration. All facilities shall be kept in continuous operation unless Owner grants specific written permission to the contrary.

I. It is the responsibility of the Contractor to monitor the construction area for the presence of flammable vapors and to ensure the proper construction methods and equipment is used if hazardous conditions exist.

3.03 EXISTING CONDITIONS:

A. Each bidder shall inspect the site as required for knowledge of existing conditions. Failure to obtain such knowledge shall not relieve the successful bidder of the responsibility to meet existing conditions in performing the work under the Contract.

B. Where new work cannot be installed without changes in existing plant, facility, or systems or where it is indicated on drawings to re-work an existing installation, this contract shall include alterations to existing work as required to install new work. Additions to the contract cost will not be allowed because of the Contractor's failure to inspect existing conditions.

C. Existing conditions indicated on the drawings are taken from the best information available on previous contract drawings and from visual site inspection. They are not to be construed as "As Built" conditions but are to indicate the intent of this work. It shall be the responsibility of the Contractor to verify all existing conditions at the project site and to perform the work as required to meet the existing conditions and the intent of this work indicated.

D. Unless specified otherwise, all existing material and equipment shown or required to be removed from existing construction and not shown to be reused or turned over to the Owner shall become the property of the Contractor and shall be promptly removed from the site.

E. Any existing material or equipment which is to be reused or is to remain in place and which is damaged by this Contractor in performing the contract work shall be repaired to the satisfaction of the Owner or shall be replaced with new equipment and material.

3.04 STORING MATERIALS:

A. Unless otherwise arranged for by the Contractor, buildings of the Owner shall not be used for Contractor storage or job office purposes. Open or exposed space for storage of material and location of temporary job facilities will be allocated to the Contractor. The Contractor, at his own expense, shall provide any temporary structures such as trailers and sheds, as may be required for this purpose.

3.05 TESTING LABORATORY SERVICES:

A. The Contractor shall secure the services of an independent testing laboratory approved by the Engineer and Owner to perform all testing, witnessing and certification of materials. This applies to coating integrity, fuel acceptability, pressure tests and weld examinations.

B. The cost for all laboratory services will be the responsibility of the Contractor.

C. The laboratory shall:

1. Cooperate with the Owner and Contractor; and provide qualified personnel promptly on notice.
2. Perform specified inspections, sampling and testing of materials and methods of construction:
    a. Comply with specified standards; ASTM, other recognized authorities and as specified.
    b. Ascertain compliance with requirements of Contract Documents.
3. Promptly notify the Owner and Contractor of irregularities or deficiencies of work, which are observed during performance of services.
4. Promptly submit 2 copies of reports of inspections and test to the Owner including:
    a. Date Issued
    b. Project Title and Number
    c. Testing Laboratory Name and Address
    d. Name and Signature of Inspector
    e. Date of Inspection or Sampling
    f. Record of Temperature and Weather
    g. Date of Test
    h. Identification of Product and Specification Section
    i. Location in Project
    j. Type of Inspection or Test
    k. Observations Regarding Compliance with Contract Documents
5. Perform additional pre-approved services as required by the Engineer, Owner, and Contractor.
6. The laboratory is not authorized to:
    a. Release, revoke, alter, or enlarge on, requirements of Contract Documents
    b. Approve or accept any portion of work
    c. Perform any duties of the Contractor

D. The Contractor shall:

    a. Coordinate laboratory services, cooperate with laboratory personnel, provide access to the project and to manufacturer's operations.
2. Furnish to laboratory preliminary representative samples of materials to be tested, in required quantities.
3. Furnish labor and facilities:
    a. To provide access to work to be tested
    b. To obtain and handle samples at the site
    c. To facilitate inspections and tests
    d. For laboratory's use for storage of test samples
4. Arrange with laboratory and pay for pre-approved additional samples and tests

required for Contractor's convenience.

5. The Owner shall reserve the right to request the Contractor to obtain the services of a separate, equally qualified independent testing laboratory, to perform additional inspections, sampling and testing required when initial test indicate work does not comply with contract documents. The Contractor shall pay the costs of such retesting.

3.06 WARRANTY BY CONTRACTOR:

A. Warrant all systems, equipment, materials and components installed under these specifications for a period of not less than one (1) year from time of beneficial use of the facility and systems by the Owner. Coatings shall be warranted for a period of five (5) years for pitting, rusting, and adhesion.

END OF SECTION

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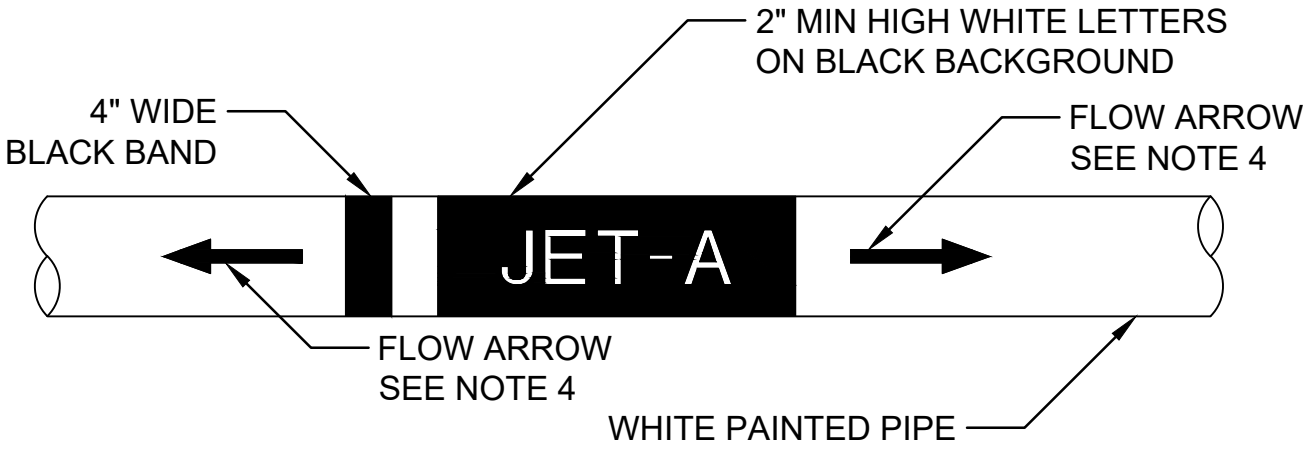
Appendix B
Standard Details



NOTES:

1. PIPE LABELING PER API/IP 1542.

2. PLACE LABELS AT INTERVALS NOT EXCEEDING 20'-0" AND AS APPROVED BY ENGINEER.

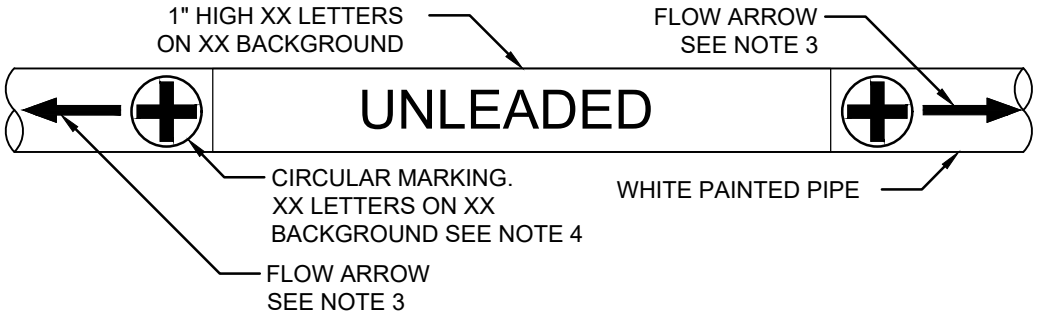
3. PAINT ALL JET-A VALVES BLACK PER API/PI 1542.

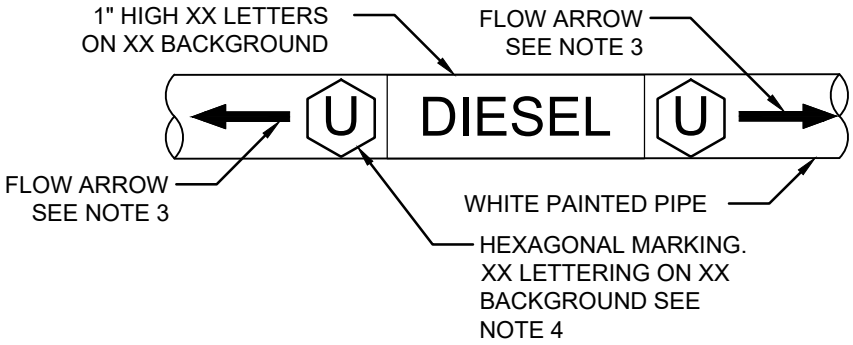
4. ARROWS TO BE PLACED TO SHOW ACTUAL DIRECTION OF FLOW OF THE FUEL.

1

AVIATION FUEL PIPE LABELS

NTS



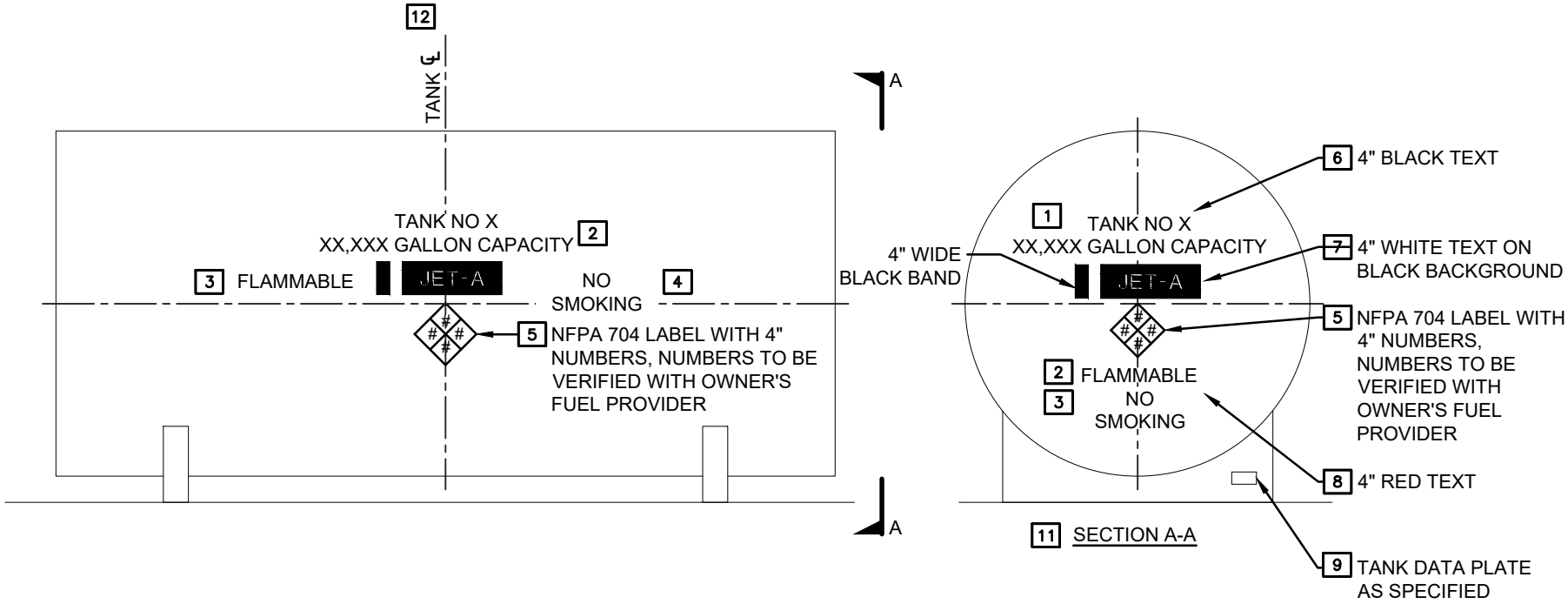


NOTES:

1. AVIATION FUEL PIPE LABELING PER API/IP 1542.
2. PLACE LABELS AT INTERVALS NOT EXCEEDING 20'-0" AND AS APPROVED BY ENGINEER.
3. ARROWS TO BE PLACED TO SHOW ACTUAL DIRECTION OF FLOW OF THE FUEL.
4. LABELING PER API 1637. VERIFY OCTANE RATING WITH OWNER TO ORDER THE CORRECT COLORS.

XX PETROLEUM FUEL PIPE LABELS

NTS

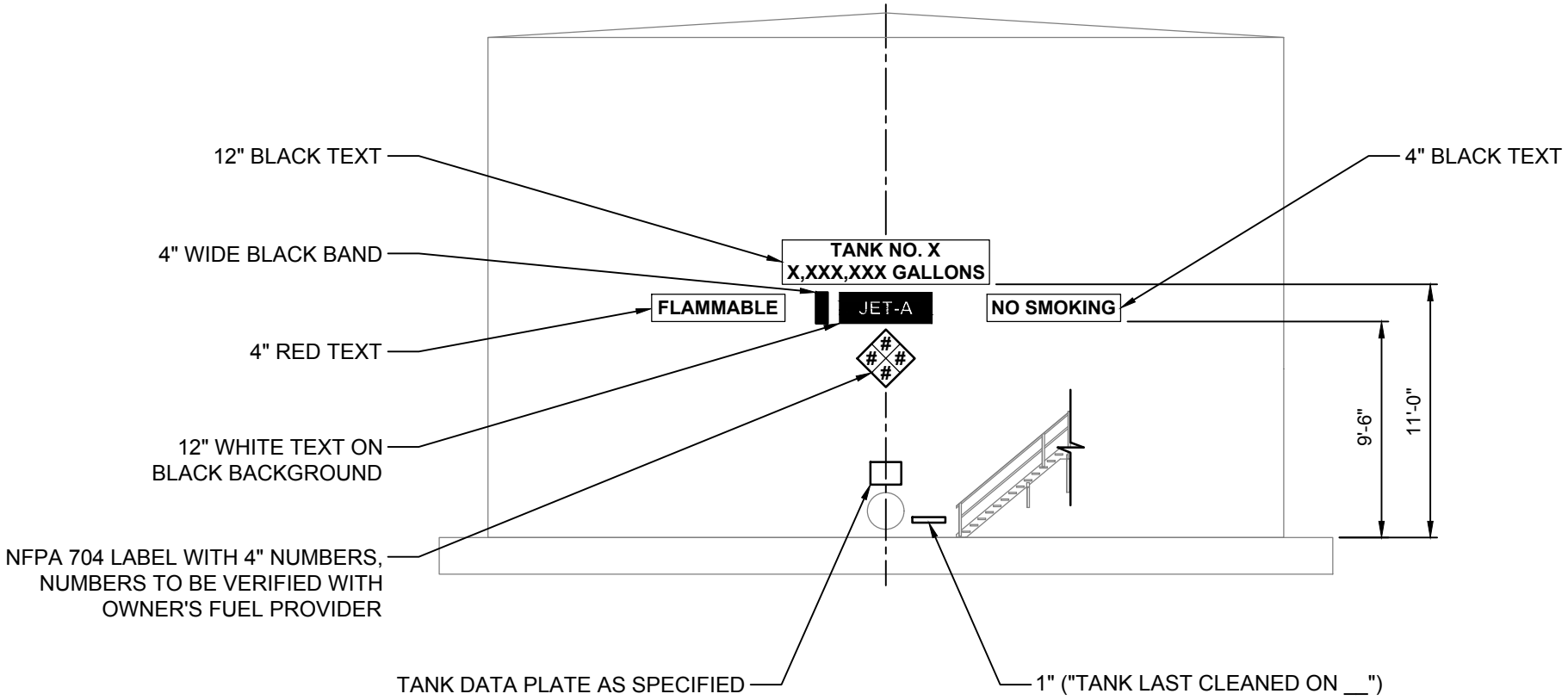


NOTES:

1. LABELING PER NFPA 704. VERIFY OCTANE RATING WITH OWNER.
2. LABELS SHALL BE PLACED ON EACH TANK QUADRANT TYP 4 SIDES.
3. CONTRACTOR SHALL COORDINATE TANK NUMBER WITH OWNER.

XX JET-A TANK LABELS 1

NTS



NOTES:

1. LABELING PER NFPA 704.
2. LABELS SHALL BE PLACED ON EACH TANK QUADRANT TYP 4 SIDES.
3. CONTRACTOR SHALL COORDINATE TANK NUMBER WITH OWNER.
4. TANKS SHALL HAVE A DECAL STATING "TANK LAST CLEANED ON" WITH A SPACE FOR FILLING IN DATES.

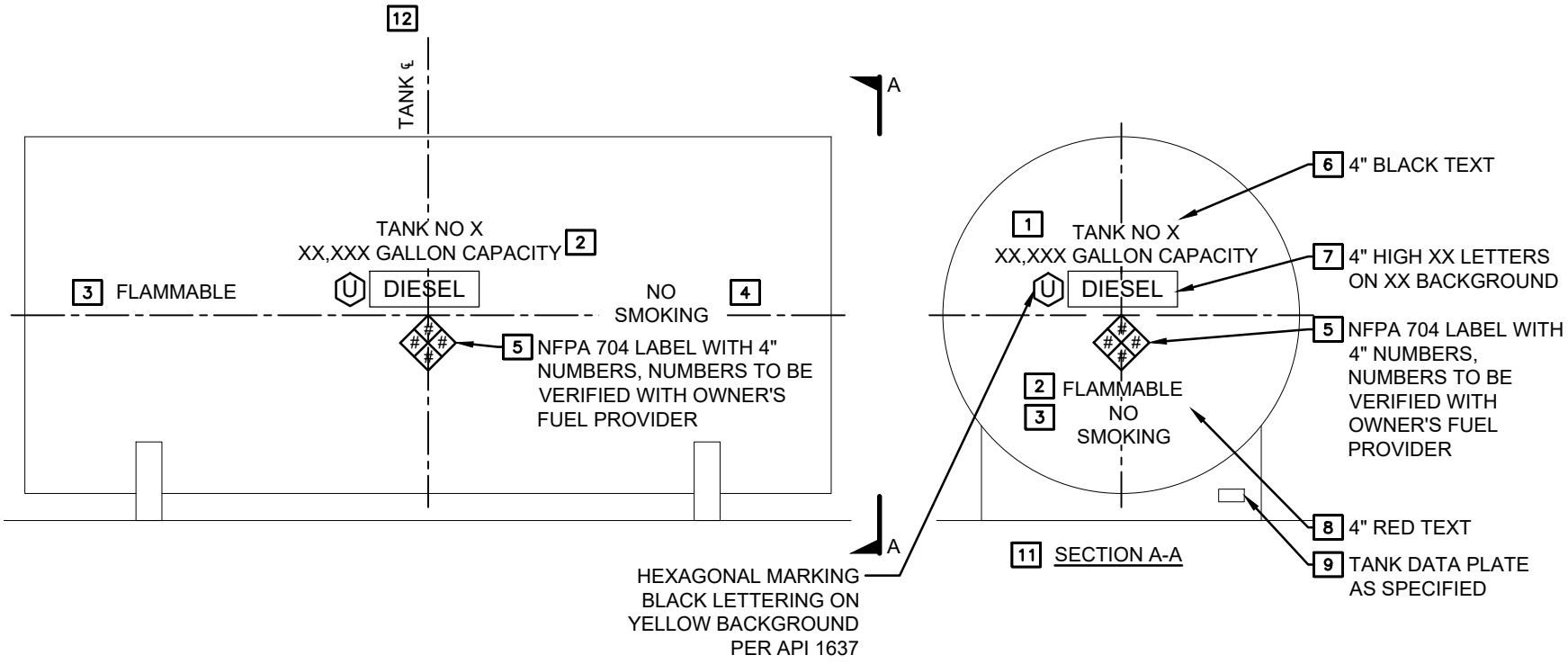
XX JET-A TANK LABELS (VERTICAL)

SCALE: NTS

M020540 - VERTICAL JET-A TANK LABELS

08/14/2023 8:18 AM

V2.1

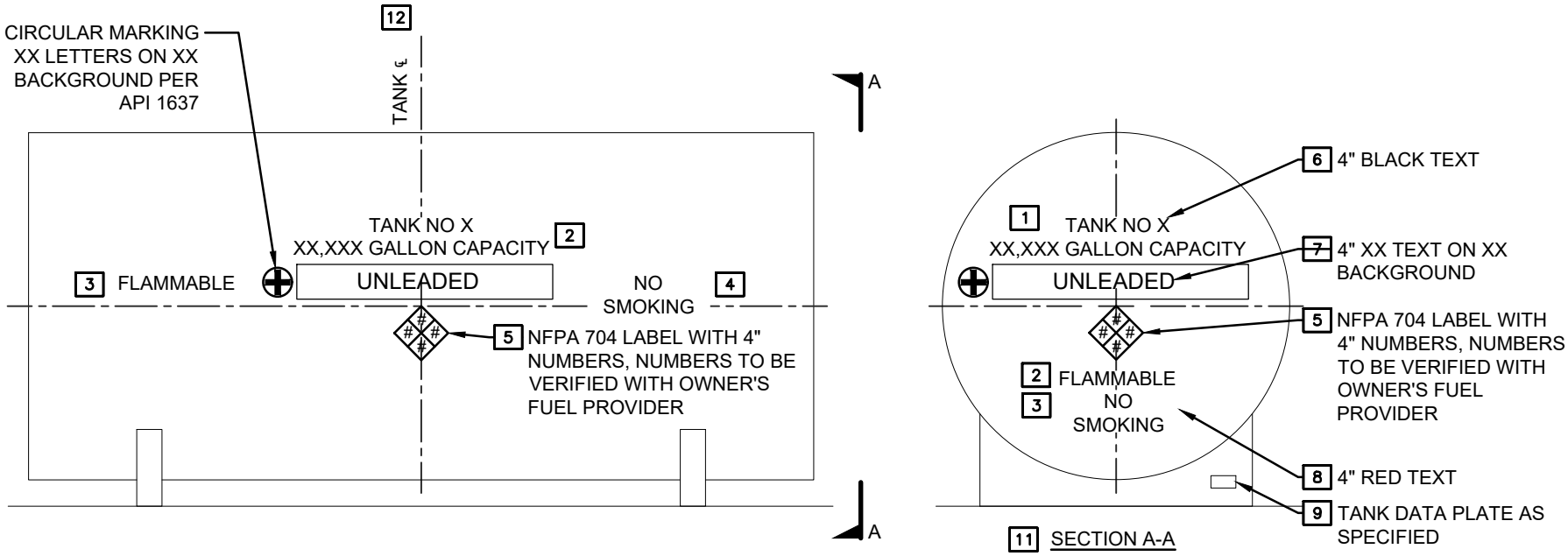


NOTES:

1. LABELING PER NFPA 704. VERIFY OCTANE RATING WITH OWNER.
2. LABELS SHALL BE PLACED ON EACH TANK QUADRANT TYP 4 SIDES.
3. CONTRACTOR SHALL COORDINATE TANK NUMBER WITH OWNER.

XX DIESEL TANK LABELS 1

NTS



NOTES:

1. LABELING PER NFPA 704. VERIFY OCTANE RATING WITH OWNER.
2. LABELS SHALL BE PLACED ON EACH TANK QUADRANT TYP 4 SIDES.
3. CONTRACTOR SHALL COORDINATE TANK NUMBER WITH OWNER.

XX UNLEADED TANK LABELS 1

NTS

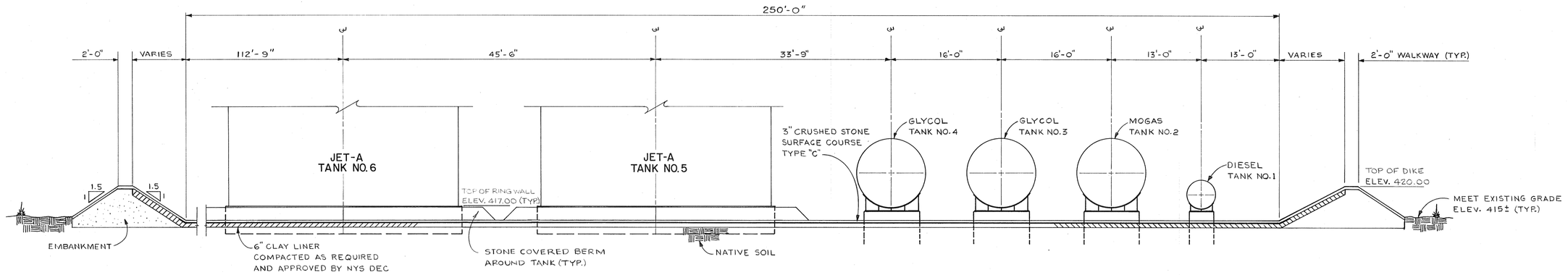
M020520 - UNLEADED TANK LABELS

12/20/2021 12:40 PM

V2.1

Appendix C
Reference
Drawings

NOTE:
REFER TO SHT. S-3 FOR DETAILS OF JET-A TANK FOUNDATIONS AND SECONDARY CONTAINMENT.



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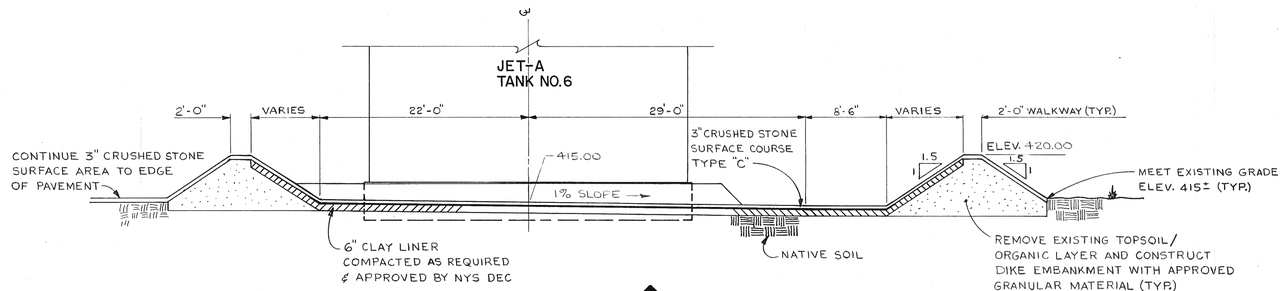

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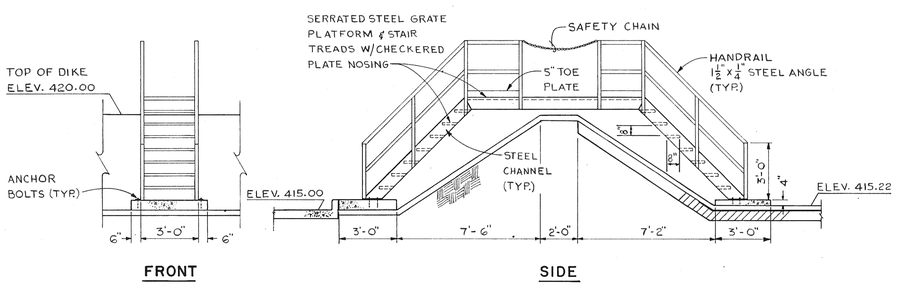

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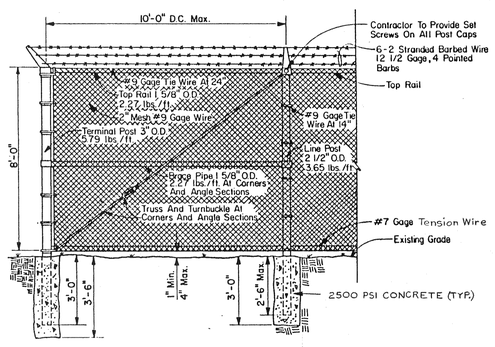

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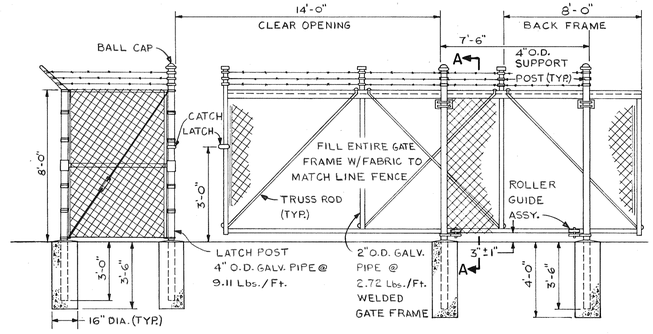

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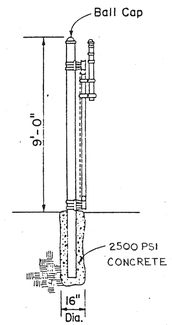


SECTION A-A

IN CHARGE OF: W. R. Dean, P.E.
MADE BY: R. J. Enigk
CHECKED BY: J. A. Cammer

H.H. SULLIVAN, INC. 501007

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

REVISIONS

FUEL STORAGE FACILITY

USAir / PIEDMONT AIRLINES

SYRACUSE, NEW YORK

SYRACUSE HANCOCK INTERNATIONAL AIRPORT

SECTIONS

University Of The State Of New York — Emanuel J. Calcagnini — No. 36780 — Licensed Professional Engineer

Calocerinos & Spina CONSULTING ENGINEERS
SYRACUSE · ATLANTA · BUFFALO · PITTSBURGH

DATE: October, 1987
SCALE: AS SHOWN
FILE NO. 302.003

SHEET NO. G-5

Appendix D
Lead-Based
Paint
Inspection

PARADIGM
ENVIRONMENTAL SERVICES

Limited Lead-Based Paint Inspection Report

Syracuse Regional Airport Authority
1000 Col. Eileen Collins Boulevard
Syracuse, New York 13212

performed by:

Paradigm Environmental, LLC
6950 East Genesee Street
Fayetteville, New York 13066

performed at:

Airfield Fuel Station
1000 Col. Eileen Collins Boulevard
Syracuse, New York 13212

May 13, 2024

PARADIGM
ENVIRONMENTAL SERVICES

Table of Contents

Section #1: Project Information

Project Description:	Limited Lead-Based Paint Inspection Report Airfield Fuel Station 1000 Col. Eileen Collins Boulevard Syracuse, New York 13212
Client:	**Syracuse Regional Airport Authority** **Mr. Jason Stokes** 1000 Col. Eileen Collins Boulevard Syracuse, New York 13212 StokesJ@syrairport.gov
Survey Performed by:	Paradigm Environmental, LLC 6950 East Genesee Street Fayetteville, New York 13066 315.455.2714 (phone) 315.455.3022 (fax) pkoslowsky@paradigmenvllc.com EPA Certification NY-1976-5
Testing Performed by:	Cedrick Kitto (LBP-R-I240141-1)
Dates Performed:	April 22, 2023
XRF Sampling Equipment Used:	SciAps X-550 PB

Section 2: Introduction

This report presents the results of the Limited Lead-based Paint Inspection performed by Paradigm Environmental, LLC (**Paradigm**) at **Airfield Fuel Station** located at **1000 Col. Eileen Collins Boulevard, Syracuse, New York 13212**. The limited Lead-based Paint (LBP) Inspection was performed on April 22, 2024, in accordance with the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD) guidelines for lead-based paint inspections. This document is prepared for the sole use of **Syracuse Regional Airport Authority** and any regulatory or governmental agencies that are directly involved in this project. No other party should rely on the information contained herein without prior written consent of **Syracuse Regional Airport Authority.** The scope of services, inspection methodology, and results are presented below.

Section 3: Scope of Work

The purpose of this inspection is to identify and assess the painted fuel tanks at the airfield on the subject property. The intent of this inspection was to ascertain the presence of lead-based paint above specified regulatory action levels. If lead-based paint was found, the inspection would identify types of architectural components and their respective lead concentrations in such a manner that this report could be used as a basis for subsequent abatement activity.

Section 4: Description of Property

International airport/airfield fuel station.

Section 5: Qualifications

Mr. Kitto/**Paradigm** performed the inspection using a SciAps X-550 PB X-ray Fluorescence (XRF) spectrum analyzer instrument. Mr. Mosher has attended the manufacturer's radiation safety course for operation and handling of the instrument and completed an EPA sponsored curriculum in Lead Inspector and Risk Assessor Training.

PARADIGM
ENVIRONMENTAL SERVICES

Section 6: Method of Testing

The method employed for testing painted surfaces was with an X-ray fluorescence (XRF) analyzer. The XRF device was a SciAps X-550 PB XRF, Serial #X550-01344. The instrument was calibrated to the manufacturer's specifications and was also periodically verified against the National Institute of Standards and Testing (NIST) Standard Reference Material (SRM) 2579 lead film Standard Reference Material (SRM) 2579 lead film (1.0 mg/cm^2).

Section 7: Testing Protocol

Testing was conducted in accordance with Chapter 7 of the Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing as published by HUD in October 1997 and updated in July of 2012. Interior & exterior XRF readings were taken on select painted surfaces at the subject property. The HUD definition of lead-based paint is lead equal to or greater than 1.0 milligrams per square centimeter (1.0 mg/cm^2).

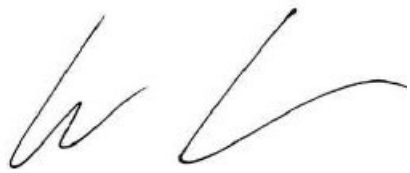
Section 8: Summary of Results

A total of eight (8) components were tested. No components were identified as having a presence of lead at or above the HUD Guidelines action level.

Section 9: Inspection Limitations

This inspection was planned, developed, and implemented based on the experience in performing lead-based paint inspections by **Paradigm**. This inspection was conducted in accordance with the HUD Guidelines as published in October 1997 and updated in July of 2012. Paradigm utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. A copy of personnel certifications and equipment licenses has been provided for your review. Paradigm's evaluation of the painted surfaces identified during this inspection is based on conditions observed at the time of the inspection. Paradigm cannot be responsible for changing conditions that may alter the relative exposure risk for future changes in accepted methodology.

Performed & Prepared by:



Cedrick Kitto
Paradigm Environmental, LLC

PARADIGM
ENVIRONMENTAL SERVICES

APPENDIX

XRF Results

The following tables list all the readings taken at Airfield Fuel Station located at 1000 Col. Eileen Collins Boulevard, Syracuse, New York 13212. The column labels are defined as follows:

1. SHOT: numbers the measurements in the order that they are taken
2. WALL: WALL: "A" the side of the building facing the Airfield. Locations B, C & D are clockwise from Wall A
3. COMPONENT: provides the painted building components that were tested
4. SUBTRATE: provides the material that is below the painted surface.
5. COLOR: the color of the paint that was tested
6. CONDITION: provides one of three painted condition categories (Intact, Fair, Poor)
7. REPS: the number of representative components within the room
8. READING: the concentration of lead (shown in mg/cm^2) in paint as measured by the XRF device. Bold yellow highlighted font indicates a reading of $\geq$ 1.0 mg/cm^2

PARADIGM
ENVIRONMENTAL SERVICES

Client: Syracuse Regional Airport Authority		Date: 4/22/24
Project Location: Syracuse Airport - Airfield Fuel Station	Inspector: Cedrick Kitto	Scribe: Cedrick Kitto

Shot	Room Name	Wall/Side	Location	Component	Substrate	Color	Condition	Reps	Reading
1	Calibration In								1.1
2	Calibration In								1.0
3	Calibration In								1.0
4	Calibration In								0.0
5	Calibration In								0.0
6	Calibration In								0.0
7	Tank 5	A	Center	Fuel Tank	Metal	White			0.0
8	Tank 5	A	Center	Fuel Tank Outlet	Metal	White			0.0
9	Tank 4	A	Center	Fuel Tank	Metal	White			0.1
10	Tank 3	A	Center	Fuel Tank	Metal	White			0.0
11	Tank 2	A	Center	Fuel Tank	Metal	White			0.0
12	1 Diesel Large	A	Center	Fuel Tank	Metal	White			0.0
13	1 Diesel Small	A	Center	Fuel Tank	Metal	White			0.0
14	Tank 6	A	Center	Fuel Tank	Metal	White			0.0
15	Calibrate Out								1.0
16	Calibrate Out								1.0
17	Calibrate Out								1.0
18	Calibrate Out								0.0
19	Calibrate Out								0.0
20	Calibrate Out								0.0

United States Environmental Protection Agency

This is to certify that

Paradigm Environmental, LLC

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires April 25, 2025

Michelle Price

Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch

LBP-F201419-2

Certification #

April 29, 2022

Issued On

United States Environmental Protection Agency

This is to certify that

Cedrick Kitto

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires October 26, 2025

Ben Conetta, Chief
Chemicals and Multimedia Programs Branch

LBP-R-I240141-1
Certification #

October 12, 2022
Issued On

Exhibit B

SYRACUSE REGIONAL AIRPORT AUTHORITY
NON-COLLUSIVE PROPOSAL CERTIFICATION

By submission of this proposal, each Respondent and each person signing on behalf of any Respondent certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this proposal have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Respondent, or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the Respondent and will not knowingly be disclosed by the Respondent prior to opening, directly or indirectly, to any other respondent or to any competitor; and
3. No attempt has been made or will be made by the Respondent to induce any other person, partnership or corporation to submit or not to submit a proposal for purpose of restricting competition.

I hereby affirm under the penalties of perjury that the foregoing statement is true.

I also acknowledge notice that a false statement made in the foregoing is punishable under Article 20 of the Penal Law.

SIGN HERE _____. _____

Signature of Respondent's Authorized Person Date

_____.

Name of Respondent

_____.

Name of Respondent's Authorized Person

_____.

Title of Respondent's Authorized Person

Exhibit C

Minority/Women Owned Business Enterprise Forms and Materials

(Forms located on https://syrairport.org/sraa/supplier-diversity-program/)

- ☐ Form SRAA – 5000 Minority/Women-Owned Business Enterprises – Equal Employment Opportunity Policy Statement
- ☐ Form SRAA – 5001 Equal Employment Opportunity Staffing Plan
- ☐ Form SRAA – 5003 M/WBE Subcontractor Utilization Plan
- ☐ Form SRAA – 5004 M/WBE Goal Requirements Certification of Good Faith Efforts
- ☐ Form SRAA – 5005 M/WBE Cover Letter
- ☐ Form SRAA – 5006 Contractor Bid Solicitation Letter
- ☐ Form SRAA – 5007 M/WBE Subcontractors and Suppliers Letter of Intent to Participate
- ☐ Form SRAA – 5008 M/WBE Contractor Participation Bid/Proposal

All proposers are required to submit each of the above forms with each proposal. Failure to do so will result in a finding of non-responsiveness and rejection of that proposal.

Exhibit D

Service-Disabled Veteran Owned Business Forms and Materials

(Forms located on https://syrairport.org/sraa/supplier-diversity-program/)

- ☐ Form SDVOB 100 - SDVOB Utilization Plan

All proposers are required to submit each of the above forms with each proposal. Failure to do so will result in a finding of non-responsiveness and rejection of that proposal.

Exhibit E

PROOF OF INSURANCE COVERAGE

Proposer shall provide SRAA with satisfactory evidence of the Proposer's Professional Liability Insurance from a company satisfactory to SRAA and licensed to transact business in the State of New York. Proposer shall submit this form with its proposal.

INSURER:

COMPANY NAME:_____

COMPANY ADDRESS:_____

_____

CONTACT NAME AND PHONE:_____

Proposer is required to submit a letter or certificate from the Company providing insurance certifying that the Vendor has professional liability insurance in accordance with the terms set forth in this RFP.

Exhibit F

VERIFICATION OF MINIMUM QUALIFICATIONS

By submission of this proposal, each Respondent and each person signing on behalf of any Respondent certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief, they meet the following Minimum Qualification Requirements:

1) The bidder must have a minimum of five (5) years of experience in the systems specified. The Syracuse Regional Airport Authority will not accept the experience of individual employees or combinations of employees as company experience.

I hereby affirm under the penalties of perjury that the foregoing statement is true.

I also acknowledge notice that a false statement made in the foregoing is punishable under Article 20 of the Penal Law.

SIGN HERE _____ _____

Signature of Respondent's Authorized Person Date

_____.

Name of Respondent

_____ .

Name of Respondent's Authorized Person

_____.

Title of Respondent's Authorized Person

Exhibit G

REFERENCES

References: Please provide three (3) current customers' references for whom the Bidder has provided Coating Services of the same nature and type described in this RFP.

1. Business:_____

   Contact Name:_____ Title: _____

   Address: _____

   Email: _____ Phone:_____

2. Business:_____

   Contact Name:_____ Title: _____

   Address: _____

   Email: _____ Phone:_____

3. Business:_____

   Contact Name:_____ Title: _____

   Address: _____

   Email: _____ Phone:_____