INVITATION FOR QUOTES FOR A SMALL PROCUREMENT (CONSTRUCTION RELATED)

[per AS 36.30.320(a)]

D. I. A.	Procurement Agency and Address:				
Project Name & No.: Replace HVAC Fuels Area H12, IFQ	DMVA/DAS Procurement				
09-004-26	49000 Army Guard Road Suite B105B				
Location: BLDG 16456 Hangar 12 Rm 139, 140, 141	JBER, AK 99505				
Location: BLDG 16456 Hangar 12 Rm 139, 140, 141 16456 Airlifter Dr.					
JBER, AK 99506					
Procurement Officer: Jannah Cayetano	Date of Issuance: 9/5/2025				
DESCRIPTION OF WORK, REQUIRED COMPLETION DATE, LISTING OF A	TTACHMENTS:				
See Scope of Work.					
1. Quotes in excess of \$200,000 will be deemed non-responsive. 2. Any projection					
	d on this project.				
The following insurance coverages are required: Workers Co	mp				
Bonding Requirement:					
Bid Bond, Payment Bond, & Performance Bond are 🗵 are not 🔲 1	required on this project.				
Quotes for furnishing all labor, equipment and materials and performing all we consideration, quotes must be received before 2:00 P.M. local time on the 19th Disadvantaged Business Enterprises (DBE's) may submit quotes and will not be origin or sex in consideration for an Award which results from this invitation. procedures or Project requirements, requests for additional documents, or inquivade to: Title: Jannah Cayetano, Procurement Specialist 3 at: MvaDasProcure Applicable provisions of AS 36.30 and 2 AAC 12 govern this solicitation.	h day of September, 2025. Late quotes cannot be accepted. e discriminated against on the grounds of race, color, national Any errors, omissions, or questions pertaining to solicitation iries pertaining to site conditions or scheduled visits must be ment@alaska.gov.				
SUBMITTAL OF QUOTES: Quotes for this Project must be submit themselves with the <i>Instructions to Offerors</i> , page 2 of this form, prior to subm					
- VERBAL QUOTES SHALL BE GIVEN TO					
AT THE ABOVE NOTED TELEPHONE NUMBER, PRIOR TO TH	E STATED DEADLINE. (See above Bonding Requirements.)				
- WRITTEN QUOTES, INCLUDING AMENDMENTS OR TO THE ABOVE NOTED DEADLINE. QUOTES MUST BE ATTACHED. (See above Bonding Requirements.)					
Written quotes may be submitted by electronically, hand delivered, or mailed quotes. Mailed quotes must allow time for delivery and the envelope must be					
Quote for Project:	Procurement Agency Address:				
Name: Replace HVAC Fuels Area H12	DMVA/DAS Procurement				
Number: <u>IFQ 09-004-26</u>	49000 Army Guard Road Ste. B105B				
Attn: DMVA/DAS Procurement	JBER, AK 99505				
Quote amendments or withdrawals must be made in writing to the individual received prior to the time for quote submittal.	l of the Procurement Agency receiving the quotes, and must be				

INVITATION FOR QUOTES FOR A SMALL PROCUREMENT (CONSTRUCTION RELATED)

INSTRUCTIONS TO OFFERORS

The State of Alaska desires that all Offerors submitting quotes on construction contracts are given a fair and equal opportunity to compete. Offerors are required to follow these instructions:

REVIEW THE PROJECT DOCUMENTS: Most construction Projects in excess of \$1,000 will have some type of written documentation prepared expressly for the Work. If you are asked to submit a quote and no written information has been provided, you should ask the procurement Agency for written documentation. If the scope of services have been described to you verbally, and you are selected for Contract Award, you must ensure that the information of the services to be performed (scope of work) is put in writing prior to accepting the Contract. When providing a Quote, carefully review and consider all materials related to the solicitation and work of the contract. By submitting a quote the Offeror warrants that they are familiar with the Project requirements, have visited or otherwise examined the site, and are aware of the conditions to be encountered. Offeror's can verify the contents and completeness of their quote documents by contacting the procurement Agency individual named on the front of this form.

SUBMITTING THE QUOTE: The Quote must be submitted in one of the following formats as called for in the Invitation:

- 1. **ORALLY** if a verbal quote is solicited, the Offeror must provide, in addition to their quote amount and mailing address -- (1) their valid Alaska Business License number, (2) if applicable, a valid Contractor's Registration number, (3) their status as an Alaskan Bidder (Offeror), (4) their intended use of Alaskan products, (5) the carrier's name and policy number for their Workers' Comp Insurance (or a statement of sole proprietorship, if applicable), and (6) the Employer (Tax) Identification Number or Social Security Number. The Procurement Agency will enter this information on the quote schedule.
- 2. **WRITTEN** if a written quote is solicited, the Offeror must complete, in ink or typewritten, the *Small Procurement Quote Submittal*, Form SPC-002. Failure to acknowledge receipt of addenda or to execute the form correctly and completely may disqualify the quote.

NOTE: The Department of Labor requires an Offeror to be licensed and registered for the required type of work prior to submitting a quote. If the procurement Agency determines the Offeror is improperly registered or licensed, their quote may be deemed nonresponsive.

<u>SUBCONTRACTOR LISTING:</u> Subcontractors intended to be utilized on this contract must be listed in the response to the solicitation. Work shall not be awarded to any subcontractor without prior approval from the procurement Agency. Subcontractors may be added or removed only as approved by the procurement Agency.

<u>responsive</u> oral, written or sealed quotes, the procurement Agency will compare the quotes and determine the lowest Offeror. If the procurement Agency discovers a discrepancy between the unit price amount and the extended amount; the unit price amount will prevail. Conditioned quotes, unless expressly requested, will not be considered. When the quote schedule is composed of a basic amount with alternates, the procurement Agency will base its determination of the low quote and the amount of the Contract Award solely upon those quotes, basic and alternates, that are priced within the extent of available construction funds. Alternates will be considered for Award in the order listed, except that if the order of Offerors is not affected, the Award may include any combination of funded alternates, or none, as may be in the best interest of the procurement Agency.

When determining the lowest quote, the procurement Agency will also give a 5% Alaska Offeror's preference and an appropriate Alaska Products preference to quotes designating the applicability of a preference. To qualify for the Offeror's preference (per AS 36.30.170) the Offeror **must** (1) hold a current Alaska Business License, (2) submit the quote under the name appearing on the license, (3) have staffed and maintained a place of business within Alaska for the previous six months and (4) be incorporated or qualified to do business under the laws of the State. In addition, if the Offeror is a partnership or joint venture, all parties must meet the criteria to be eligible for the preference. A booklet fully describing the Alaska Preferences (Bidder, Offeror, Product, Disabilities, Veteran) program is available at http://doa.alaska.gov/dgs/pdf/pref2.pdf. A detailed description of the Alaska Products Preference Program is available at http://www.commerce.state.ak.us/ded/dev/prodpref/prodpref.htm.

The procurement Agency will make a determination of **responsibility** as required by 2 AAC 12.500. If the lowest Offeror is declared responsible, the procurement Agency will execute the *Notice of Award / Notice to Proceed,* Form SPC-003, and send it to the Offeror for acknowledgement. If the lowest Offeror is found to be nonresponsible, this process will be repeated with the second lowest Offeror -- and so on until the lowest responsive and responsible Offeror is determined.

NOTICE OF AWARD AND PROTEST: A written notice will be provided on all Awards exceeding \$25,000 (2 AAC 12.400(h)). All protests must be filed with the Commissioner of the procurement Agency (or designee) and copied to the Procurement Officer. Protest procedures are described in AS 36.30.560 and 2 AAC 12.695. The extent of the protest remedy is limited to quote preparation costs (AS 36.30.585).

INDEMNITY AND INSURANCE – The following insurance is required for all construction contracts:

Article 1. Indemnification

The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act of the Contractor under this agreement. The Contractor shall not be required to indemnify the contracting agency for a claim of, or liability for, the independent negligence of the contracting agency. If there is a claim of, or liability for, the joint negligent error or omission of the Contractor and the independent negligence of the Contracting agency, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. "Contractor" and "Contracting agency", as used within this and the following article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "independent negligence" is negligence other than in the Contracting agency's selection, administration, monitoring, or controlling of the Contractor and in approving or accepting the Contractor's work.

Article 2. Insurance

Without limiting Contractor's indemnification, it is agreed that Contractor shall purchase at its own expense and maintain in force at all times during the performance of services under this agreement the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Contractor's policy contains higher limits, the state shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Contracting Officer prior to beginning work and must provide for a notice of cancellation, nonrenewal, or material change of conditions in accordance with policy provisions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21.

- **2.1 Workers' Compensation Insurance:** The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. **The policy must waive subrogation against the State.**
- **2.2 Commercial General Liability Insurance:** covering all business premises and operations used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$300,000 combined single limit per claim.
- **2.3 Commercial Automobile Liability Insurance:** covering all vehicles used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$300,000 combined single limit per claim.

SMALL PROCUREMENT QUOTE SUBMITTAL (CONSTRUCTION RELATED)

[per AS 36.30.320(a)]

Project Name & No.: Replace HVAC Fuels Area H12, II	Procurement Agency and Address: DMVA/DAS Procurement
09-004-26	49000 Army Guard Road Ste. B105B
Location: BLDG 16456 Hangar 12 Rm 139, 140, 141	JBER, AK 99505
16456 Airlifter Dr.	
JBER, AK 99506	
Procurement Officer: Jannah Cayetano	Date of Issuance: 9/5/2025
MvaDasProcurement@alaska.gov	Bid is Due: 9/19/2025
QUOTE: Offerors must read all attachments to this schedu	ile.
See Scope of Work.	T
•	
Labor: \$	' <u>-</u>
Parts/Supplies: \$	1
Disposal: \$	
TOTAL QUOTE AMOUNT \$	- 3
I have reviewed the bid documents, with addenda, conditions required for Project number <u>IFQ 09-004-26</u> . I agreequipment for the above amount(s). The Work shall be accomprocurement Officer.	ee to furnish all necessary labor, materials, and
Contractor	Contractor Reg. No.
Authorized Signature	Title
Address	
	\tau_
Business License # EIN or SSN	
Offeror is Claiming:	Alaska Products Pref. (worksheet)
Alaska Veteran Preference (SPC	
•••••	
D	
Procurement Officer:	
Date of Receipt of Bid:	

SMALL PROCUREMENT (CONSTRUCTION RELATED) OFFEROR'S QUESTIONNAIRE

Pro	ject]	Name & Number: Replace HVAC Fuels Area H12, IFQ 09-004-26
Pro	ject l	Location: 16456 Airlifter Dr., JBER, AK 99506
A.	FI	NANCIAL
	1.	Have you ever failed to complete a contract due to insufficient resources? Yes \(\scale \) No \(\scale \) If yes, explain:
	2.	Describe any arrangements you would make to finance this work:
B.	EQ	UIPMENT

1. Describe the equipment you have available and would use for this project.

ITEM	QUAN.	MAKE	MODEL	SIZE/ CAPACITY	PRESENT MARKET VALUE

2.	What percent of the total value of this contract would you subcontract?
3.	Would you purchase any equipment for use on this project: Yes No I If yes, describe type, quantity, and approximate cost:
4.	Would you rent any equipment for this work? If yes, describe type, quantity, and approximate cost:
5.	Is your proposal based on firm offers for all materials for this project? Yes No If no, please explain:
FV	PERIENCE
. EA	
1.	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes \[\scale \text{No} \sqcale \sqcale \]
	Have you had previous construction contracts or subcontracts with the State of Alaska?
	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes No
	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes No Describe the most recent or current contract, its completion date, and scope of work: List, as an attachment to this questionnaire, other construction projects you have completed;
1.	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes No Describe the most recent or current contract, its completion date, and scope of work: List, as an attachment to this questionnaire, other construction projects you have completed; the dates of completion, scope of work, and total contract amount for each project
1.	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes No Describe the most recent or current contract, its completion date, and scope of work: List, as an attachment to this questionnaire, other construction projects you have completed; the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months. I hereby certify that the above statements are true and complete.
1.	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes No Describe the most recent or current contract, its completion date, and scope of work: List, as an attachment to this questionnaire, other construction projects you have completed; the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months.
1.	Have you had previous construction contracts or subcontracts with the State of Alaska? Yes No Describe the most recent or current contract, its completion date, and scope of work: List, as an attachment to this questionnaire, other construction projects you have completed; the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months. I hereby certify that the above statements are true and complete.

Scope of Work

Replace HVAC Fuels Area H12, B16456

Joint Base Elmendorf-Richardson, Alaska

Invitation for Quotes (IFQ) # 09-004-26

Scope of Work

The Department of Military and Veterans Affairs (DMVA), Alaska Air National Guard requires replacement of a ceiling mounted fan coil unit and associated components inside the Fuels area in H12, B16456. This scope of work (SOW) outlines the necessary activities for the removal of the existing fan coil unit (FCU) in the Fuels Area of H12, and the installation of a new FCU designed to maintain positive pressure within the designated space. The primary objective is to ensure that the new FCU provides sufficient airflow to create and maintain positive pressure, preventing infiltration of contaminants and maintaining a clean environment. This project includes all labor, materials, equipment, and incidentals required for a complete and functional FCU replacement, testing, and commissioning.

The contractor shall demolish and dispose of the old FCU unit and provide a right sized HVAC unit to maintain positive pressure in this area. Contractor shall test and utilize existing electrical conduit, conductors and circuit breaker where applicable. Contractor shall submit as-built drawings depicting work completed and test and commission the installed HVAC unit. Government will provide as-built and stamped engineered drawings and specifications for contractor use.

All Work shall comply with local, state, federal codes (Air Force Instructions (AFI), United Facilities Criteria (UFC) and other applicable DoD instructions). The contractor shall remove all construction debris and remove unused materials. Contractor shall submit O&M documentation, as-built drawings depicting work completed, and test and commission the installed FCU unit before turning the area to building users.

Project Location

BLDG 16456 Hangar 12 Rm 139, 140, 141 16456 Airlifter Dr. JBER, AK 99506

Worksite Inspection

A site visit will be held at **1:00 P.M.**, Alaska Time on **September 9**, **2025**. The purpose of the site visit is to review and discuss the scope of work with prospective bidders. Bidders are expected to thoroughly review the IFQ prior to the site visit and must submit any questions in writing via email at MvaDasProcurement@alaska.gov.

Potential offerors are encouraged to visit the worksite so they can see the conditions and areas under which the work described will be performed. Offeror's failure to visit the worksite will in no way relieve the offeror of the responsibility of performing the work in strict compliance with the true intent and meaning of the terms, conditions and specifications of this solicitation. The worksite may be inspected by contacting Esteban Acevedo or Allen Wilson by phone at 907-552-4884 or via email at esteban.acevedo@us.af.mil, allen.wilson.4@us.af.mil.

This contact person is only empowered to allow potential bidders to view the work site. The contact person cannot and will not answer potential bidder questions regarding the work to be performed under this IFQ or the terms, conditions, and specifications of this IFQ. Any questions potential bidders have must be directed to the procurement officer.

Project Completion Deadline

This project must be completed no later than 60 days after the award, pending receipt of equipment if it is of long lead item nature. The Contractor is responsible for notifying the DMVA Project Manager or Designee prior to mobilization/beginning operations, any time operations shut down or begin during the contract period, following completion of operations, and when all equipment is demobilized from the project site. The Contractor can request an extension of time from the DMVA Project Manager or Designee for completion of work, due to unforeseen weather conditions prohibiting work. Any extension for completion of services must be approved in writing by the Procurement Specialist via written change order to the contract.

Contractor Responsibilities

- 1. Provide all necessary materials, equipment, labor, maintenance, and transportation to complete the scope of work;
- 2. Provide equipment and operator capable of performing work;
- 3. Mobilization/Demobilization;
- 4. Obtaining all required permits and licenses prior to beginning work;
- 5. Demobilize and clean-up of work site. All areas will be left in as clean or better condition than when the Contractor arrived. All construction debris is to be removed from the construction site;
- 6. Adhere to indemnification and insurance requirements outlined in this solicitation during the life of the contract.
- 7. All work must be in accordance with Unified Facility Code and Department of Defense specifications and criteria found at https://wbdg.org/ffc/dod.
- 8. The contractor, subsequent employees, or subcontractors entering installation as part of this contract will abide by all instructions and directives of JBER.

Mobilization and Demobilization

Mobilization and demobilization costs must be included in the quote prices offered for this Invitation for Quotes.

<u>Problems and/or Discrepancies</u>

If at any time contract operations do not meet DMVA standards, the problem or discrepancy will be brought to the attention of the Contractor. Upon such notice, the Contractor will take expedient actions to remedy the discrepancy to standards using methods identified by DMVA. Failure to correct operational problems in a timely manner will result in the termination of the Contractor on the project. DMVA will then determine if any fiscal compensation for work completed is appropriate for payment to the Contractor.

Contractor Representative

During all periods of operation, the Contractor shall have a representative in the contract area authorized to act on his/her behalf in response to notices and instructions given by the DMVA Project Manager or Designee regarding performance of this contract.

Contract Scheduling

The contractor will be required to submit an operating plan to the DMVA Project Manager or Designee for approval prior to construction services beginning. The operating plan will identify all timelines, hours of operation, areas of concern, procedures for mitigating potential safety issues, equipment to be used, names of personnel working on the project, and contact numbers. In addition, the contractor shall submit a monthly Progress Schedule (AF Form 3064) to the DMVA Project Manager or designee for approval and tasks shall match work schedule previously submitted. The work schedule under this contract will be included in the operating plan and approved by the DMVA Project Manager or Designee.

The contractor must provide the DMVA Project Manager or Designee the work schedule 5 days prior to commencing work and it shall describe major work items with corresponding projected completion dates. Normal work hours will be 7:30 AM to 4:30 PM Monday through Friday and deviations from this schedule will be coordinated with the DMVA Project Manager or Designee at least two days in advance. The contractor is not required to work on Federal or State holidays. The contractor is responsible for formatting submittals in accordance with United Facilities Guide Specifications (UFGS) 01 33 00 Submittal Procedures and for providing copies of all required permits, licenses, and certificates required to perform and complete work to the DMVA Project Manager.

<u>Subcontractors</u>

A list of subcontractors must be provided along with the offerors quote.

New Equipment

Equipment offered in response to this IFQ must be new equipment. New equipment means equipment that is currently in production by the manufacturer and is still the latest model, edition or version generally offered. The equipment must be warranted as new by the

manufacturer and may not have been used for any purpose, other than display (not demonstration), prior to its sale to the state. The state will not accept remanufactured, used, or reconditioned equipment. It is the contractor's responsibility to ensure that each piece of equipment delivered to the state complies with this requirement. A contractor's failure to comply with this requirement will cause the state to seek remedies under breach of contract.

Pre-Construction Meeting

A pre-construction meeting will be required before the Contractor begins construction services. The Contractor will coordinate a date/time with the DMVA Project Manager or Designee to conduct the pre-construction meeting.

Contract Cost

The value of this contract shall not exceed \$130,000.00 unless approved in writing by the DMVA Project Manager or Designee and a written change order to the contract issued by the Procurement Specialist.

Method of Award

Award shall be made based on the lowest responsive and responsible quote.

<u>Invitation for Quotes – Deadline for Receipt of Questions</u>

Questions regarding this Invitation for Quotes shall be sent via email to MvaDasProcurement@alaska.gov.

<u>Invitation for Quotes – Deadline for Receipt of Quotes</u>

Quotes shall be sent to MvaDasProcurement@alaska.gov. The deadline for submission of quotes is **September 19, 2025,** at **2:00 P.M. Alaska Time**. Quotes received after this deadline shall be deemed non-responsive.

Contract Administration

Contract administration will be the responsibility of the DMVA Procurement Specialist. The DMVA Procurement Specialist may be contacted by email at MvaDasProcurement@alaska.gov. Only the Procurement Specialist has full authority to alter, amend, or change a contract resulting from this Invitation for Quotes.

Inspection and Modification – Reimbursement for Unacceptable Deliverables

The Contractor is responsible for the completion of all work set out in the contract. All work is subject to inspection, evaluation, and approval by the DMVA Project Manager or Designee, responsible for coordinating this project. DMVA may employ all reasonable means to ensure that the work is progressing and being performed in compliance with the contract. DMVA may instruct the Contractor to make corrections or modifications if needed in order to accomplish the contract's intent. The Contractor will not unreasonably withhold such changes. Substantial failure of the Contractor to perform the contract may cause DMVA to terminate the contract. In this event, DMVA may require the Contractor to reimburse monies paid (based on the identified portion of unacceptable work received) and may seek associated damages.

<u>Contract Changes – Unanticipated Change Orders</u>

During the course of the contract, the Contractor may be required to perform additional work. That work will be within the general scope of the initial contract. When additional work is required, the DMVA Project Manager or Designee will provide the Contractor a written description of the additional work and request the Contractor to submit a firm time schedule and price for accomplishing the additional work. Cost and pricing data must be provided to justify the cost of such change orders per AS 36.30.400. The Contractor will not commence additional work until DMVA has secured any required approvals necessary for the change order and issued a written change order.

Termination for Default

If the DMVA Project Manager or Designee determines that the Contractor has refused to perform the work or has failed to perform the work with such diligence as to ensure its timely and accurate completion, DMVA may, by providing written notice to the Contractor, terminate the Contractor's right to proceed with part or all of the remaining work.

Payment of Work

Complete payment will be made 1) upon completion of the project to the satisfaction of the DMVA Project Manager or Designee 2) upon receipt of the Contractor's original, accurate and complete invoice, 3) upon receipt of an approved Notice of Completion from the Department of Labor and Workforce Development and 4) and a Final Completion letter issued by DMVA.

DMVA Invoice Recipient

Contractor shall send invoices to: Attn: Alaska Air National Guard PO Box 5800

JBER, Alaska 99505 Phone: 907-720-9897

E-mail: melissa.sprague.long@alaska.gov

Questions concerning payment must be addressed to the DMVA point of contact identified above.

DMVA Project Manager

The DMVA Project Manager is responsible for monitoring the operations and performance of the Contractor for contract compliance, and to coordinate actions and communications between DMVA and the Contractor. The DMVA Project Manager for this project is:

Attn: Lieutenant Allen Wilson

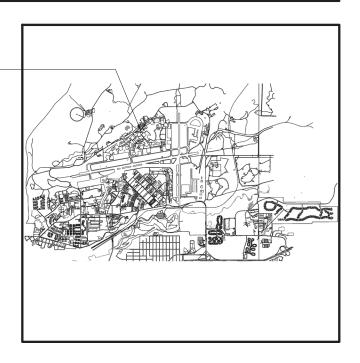
7252 Gibson Avenue JBER, Alaska 99506 Phone: 907-552-4884

E-mail: allen.wilson.4@us.af.mil

AKANG JBER B16456 FCU-2 REPLACEMENT CONSTRUCTION DOCUMENTS

FOR:

ALASKA AIR NATIONAL GUARD JOINT BASE ELMENDORF-RICHARDSON PROJECT LOCATION BUILDING 16456



PREPARED BY:



Palmer, AK

125 W Evergreen Ave, Ste 102 Palmer, AK 99645 **Phone:** 907.707.1215

www.respec.com AECC163270

	SHEET INDEX
SHEET NUMBER	SHEET NAME
G-001	COVER SHEET
M-001	SYMBOL LEGEND, ABBREVIATIONS, & SCHEDULES
M-002	SPECIFICATIONS
M-003	SPECIFICATIONS
MD111	DEMOLITION PLAN - HVAC
M 111	ELOOP BLAN HVAC

SHEET TITLE:
COVER SHEET

DATE 8/2

PROJECT No.

10032.25005

G-00'

Date It

GENERAL

DETAIL SYMBOL

SECTION SYMBOL

ROOM NAME AND

SHEET KEYNOTE

NORTH ARROW

TO BE DEMOLISHED OR RELOCATED

EXISTING TO REMAIN

MECHANICAL TAGS

EQUIPMENT DESIGNATION, SEE EQUIPMENT SCHEDULE

NEW

NUMBER DESIGNATION

GENERAL SHEET NOTE

POINT OF CONNECTION

MATCHLINE VIEW REFERENCE

CONSTRUCTION PHASE LINESTYLE

- DETAIL IDENTIFICATION

DRAWING ON WHICH

DRAWING ON WHICH

SECTION IS SHOWN

1/M-102A

ROOM NAME

101

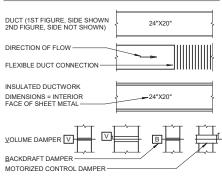
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- DETAIL IDENTIFICATION

- DRAWING ON WHICH CONTINUATION OF VIEW IS

DETAIL IS SHOWN



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WHERE X = THE DIAMETER OF THE DUCT

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RECTANGULAR ELBOW UP (OUT OF THE PAGE) -DOWN (INTO THE PAGE

FLAT OVAL GORED ELBOW

FLAT OVAL ELBOW

FLAT OVAL DUCTWORK - X" X Y" FO WHERE X = DIMENSION ON THE PAGE AND Y = DIMENSION INTO THE PAGE

ROUND RADIUS ELBOW ROUND ELBOW UP (OUT OF THE PAGE) ROUND ELBOW DOWN (INTO THE PAGE)

FLAT OVAL ELBOW UP (OUT OF THE PAGE) -

ABBREVIATIONS ACTUAL CUBIC FEET PER MINUTE ACTUAL CUBIC FEET PER MINUTE
ABOVE FINISHED FLOOR
AVERAGE GLYCOL TEMPERATURE
AS HIGH AS POSSIBLE
AIR HANDLING UNIT
APPROXIMATE
AIR SEPARATOR
ACID VERIT ACID VENT ACID VENT THROUGH ROOF ACID WASTE BRITISH THERMAL UNIT CA CFM COMPRESSED AIR CUBIC FEET PER MINUTE CIRCULATION CHILLER
CEILING
CARBON MONOXIDE
CARBON DIOXIDE
CONTINUATION, CONTINUED
CIRCULATING PUMP
CONDENSATE RETURN CHILLED WATER RETURN CHILLED WATER SUPPLY DEMOLISH DIRECT DIGITAL CONTROLS DIAMETER DOMESTIC HOT WATER CIRC DEMINERALIZED WATER RETURN DEMINERALIZED WATER SUPPLY DIRECT EXPANSION DIRECT EXPANSION
EXISTING
EXHAUST AIR
ELECTRIC BASEBOARD
EXHAUST FAN
ENTERING GLYCOL TEMPERATURE
ENTERING
EXPANSION TANK
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ELECTRIC UNIT HEATER
ENTERING WATER TEMPERATURE
FLOOR CLEANOUT FLOOR CLEANOUT FAN COIL UNIT FIRE DAMPER FLOOR DRAIN FORCED MAIN FEET FINNED TUBE FINNED TUBE
FIRE SMOKE DAMPER
GALLONS
GALVANIZED
GLYCOL COOLING RETURN
GLYCOL COOLING SUPPLY
GLYCOL HEATING SUPPLY
GREASE INTERCEPTOR
GLYCOL MAKE-JIP TANK GLYCOL MAKE-UP TANK GALLONS PER MINUTE HOSE BIBB HEATING COIL HORSE POWER HEAT RECOVERY VENTILATOR

HOT WATER HOT WATER CIRCULATION

LAB WASTE

LAB WATER HEATER LEAVING WATER TEMPERATURE

HOT WATER CIRCULATION
HEATING WATER RETURN
HEATING WATER SUPPLY
HEAT EXCHANGER
HERTZ
INSIDE DIAMETER
INCHES
LAVATORY
LINEAL FEET
LEAVING GLYCOL TEMP
LOW TEMP HEATING WATER RETURN
LOW TEMP HEATING WATER SUPPLY
LEAVING
LAB WASTE

MAXIMUM MAXIMUM
THOUSAND BTU'S PER HOUR
MINIMUM
MISCELLANEOUS
NORMALLY CLOSED
NORMALLY OPEN
NUMBER
NON POTABLE COLD WATER
OVYCEN MAX MBH MIN MISC NC NO NO. NPCW 02 OXYGEN OA OC ORD ORL OSA P OUTSIDE AIR ON CENTER OVERFLOW ROOF DRAIN OVERFLOW RAIN LEADER OUTSIDE AIR SUPPLY PCR PD PDI PG PH PHC POC PSIG PSI PW RA RCP PUMPED CONDENSATE RETURN PRESSURE DROP PRESSURE DROP
PLUMBING & DRAINAGE INSTITUTE
PROPYLENE GLYCOL
PHASE
PRE HEAT COIL
POINT OF CONNECTION
POUNDS PER SQUARE INCH GAUGE
POUNDS PER SQUARE INCH
PUMPED WASTE
RETURN AIR RETURN AIR RADIANT CEILING PANEL RD RECIRC RFL RFM RFS RHC ROOF DRAIN RECIRCULATION REFRIGERANT LIQUID RADIANT FLOOR MANIFOLD REFRIGERANT SUCTION REHEAT HEATING COIL REHEAT HEATING COIL
RAINLEADER
REDUCED PRESSURE ZONE
BACKFLOW PREVENTER
ROOF TOP UNIT
REFRIGERANT VAPOR
RAIN WATER LEADER
RADIANT ZONE
SUPPLY AIR
SCHEDULE
SOLIARE FEFT RTU RV RWL RZ SA SCH SQFT SF SQUARE FEET SUPPLY FAN STEAM HUMIDIFIER SUMP PUMP STAINLESS STEEL TRANSFER AIR TEMP TDH TP TYP TEMPERATURE TOTAL DEVELOPED HEAD TRAP PRIMER
TYPICAL
UNDERWRITER'S LABORATORY

WASTE

W/ W.C. WCO

UNDERWRITER'S LABOR UNLESS OTHERWISE NO VARIABLE AIR VOLUME UNIT HEATER VENT THROUGH ROOF VENT RISER WATER COLUMN WALL CLEANOUT WATER HEATER WATER HAMMER ARRESTOR WATER PRESSURE DROP WITH RESPECT TO

1. PROVIDE FAN COIL UNIT WITH MIXING BOX WITH MOTORIZED LOW LEAKAGE OUTSIDE AIR (TOP) AND RETURN AIR (REAR) DAMPER(S), MERV 8 FILTERS, AHRI 410 CERTIFIED HEATING COIL, MINIMUM 18 GAUGE GALVANIZED STEEL DOUBLE WALL HOUSING, MINIMUM 1" THICK INSULATION MEETING NFPA 90A AND UL 181, SLOPED GALVANIZED STEEL DRÁIN PAN WITH MIN 3/4" DRAIN CONNECTION, FORWARD CURVED DYNAMICALLY BALANCED FAN WHEEL, EC MOTOR WITH ECM SPEED CONTROLLER, ELECTRICAL DISCONNECT SWITCH, SPRING HANGERS, HINGED TOOLESS ACCESS PANELS, AND SPARE SET OF FILTERS. 2. COORDINATE WITH EXISTING DUCT SIZES, EXISTING ELECTRICAL, AND EXISTING CONTROLS TO AVOID CONFLICT.

			ELE	CTRICAL DA	ATA										BASIS OF	DESIGN	
		ESP									CAPACITY	FLOW	WPD (FT	APD (IN	MANUFAC		
MARK	MAX CFM	(IN. WC)	HP	V	PH	EAT (°F)	LAT (°F)	FLUID	EWT (°F)	LWT (°F)	(MBH)	(GPM)	HD)	W.G.)	TURER	MODEL	COMMENTS
FCU-2	700	1	1/2	115	1	60	85	50% PG	150	125	16.8	1.5	1	0.1	PRICE	BCHD-08	

FAN COIL UNIT SCHEDULE

PUMP - INLINE

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ABBREVIATIONS

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2. CODE:

- A. COMPLETE WORK IN ACCORDANCE WITH THE 2021 EDITIONS OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL FUEL-GAS CODE, NATIONAL ELÉCTRICAL CODE (NEC), AND INTERNATIONAL PLUMBING CODE (IPC) AS AMENDED BY THE UNIFIED FACILITIES CRITERIA AND PER CUSTOMARY AND UNIVERSALLY APPROVED INDUSTRY PRACTICES
- B. PROVIDE SEISMIC BRACING AND/OR SUPPORTS PER THE ABOVE CODE REQUIREMENTS

3. DRAWINGS:

- A. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW OFFSETS OR EXACT LOCATIONS OF PIPING AND DUCTS UNLESS DIMENSIONED.
- B. REVIEW DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS SECTION.
- C. BRING QUESTIONABLE OR CONFLICTING ITEMS TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE
- D. CODES ORDINANCES REGULATIONS MANUFACTURER'S INSTRUCTIONS OR STANDARDS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS AND SPECIFICATIONS

4. COORDINATION:

A. COORDINATE WORK UNDER THIS DIVISION WITH WORK OF OTHER TRADES TO AVOID CONFLICTS, ERRORS, AND DELAYS. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS

5. EXISTING CONDITIONS:

A. FIELD VERIFY DIMENSIONS PRIOR TO ORDERING MATERIALS. CONTRACTOR IS RESPONSIBLE FOR EXTRA EXPENSES ARISING FROM FAILURE ON THEIR PART TO COMPLETE THIS TASK.

6. EQUIPMENT SUBSTITUTIONS:

- A. SCHEDULED BASIS OF DESIGN EQUIPMENT IS REPRESENTATIVE OF THE STANDARD OF QUALITY AND PERFORMANCE REQUIRED
- B. WHERE INDICATED WITH "OR EQUAL", SUBSTITUTIONS WILL BE CONSIDERED IF THE CONTRACTOR DEMONSTRATES, TO THE SATISFACTION OF THE OWNER OR OWNER'S REPRESENTATIVE. THAT THE SUBSTITUTES ARE OF EQUAL OR BETTER QUALITY.
- a. WHEN A SUBSTITUTION IS APPROVED, PERFORM ADDITIONAL DESIGN AND PROVIDE EQUIPMENT AND MATERIAL TO PROVIDE A FULLY OPERATING SYSTEM MEETING THE INTENT OF THE ORIGINAL DESIGN AT NO ADDITIONAL COST TO THE OWNER. ALTERNATE DESIGNS SHALL BE SUBMITTED FOR REVIEW AND OBTAIN OWNER'S APPROVAL BEFORE PURCHASE OF EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR ADDITIONAL COSTS TO OTHER DISCIPLINES RELATED TO SUBSTITUTIONS.
- C. WHERE INDICATED WITH "NO SUBSTITUTIONS", SUBSTITUTIONS WILL NOT BE CONSIDERED.

A. PROVIDE PRODUCTS AND MATERIALS NEW AND UNUSED, UNLESS OTHERWISE NOTED. B. OBTAIN OWNER'S APPROVAL OF PRODUCTS AND MATERIALS PRIOR TO ORDERING OR INSTALLING PARTS OF SYSTEMS

- A. PROVIDE PRODUCT SUBMITTALS FOR MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS, DESCRIBED IN THE SPECIFICATIONS, AND REQUIRED FOR THE COMPLETION OF
- B. INCLUDE DIMENSIONS, WEIGHTS, CATALOG NUMBERS, WIRING DIAGRAMS, ROUGH-IN DIMENSIONS. AND PERFORMANCE DATA FOR MATERIAL AND EQUIPMENT.
- C. HIGHLIGHT DEVIATIONS FROM THESE SPECIFICATIONS OR BASIS OF DESIGN. INDEX AND IDENTIFY MATERIALS AND EQUIPMENT BY ITEM, NAME, OR DESIGNATION USED ON THE
- D. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND ARRANGEMENT AND DOES NOT RELIEVE THE CONTRACTOR FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE SUBMITTAL REVIEW DOES NOT INCLUDE CHECKING FOR QUANTITY, DIMENSION, OR FOR PROPER OPERATION. PROVIDE SUBMITTALS ELECTRONICALLY IN PDF FORMAT WITH SECTIONS LABELED AND BOOKMARKED IN ALIGNMENT WITH SPECIFICATIONS

9. RECORD DRAWINGS:

A. MAINTAIN A SET OF RECORD DRAWINGS ON THE CONSTRUCTION SITE. RECORD CHANGES ON FLOOR PLANS AND DIAGRAMS AS WORK IS COMPLETED.

- 10. OPERATION AND MAINTENANCE MANUAL: A. PROVIDE AN OPERATION AND MAINTENANCE MANUAL TO THE OWNER.
- B. THE MANUAL SHALL INCLUDE:
- a. MANUFACTURER SPECIFICATIONS,
 b. OPERATION AND MAINTENANCE INSTRUCTIONS,
- . WARRANTY INFORMATION,
- d. RECORD CONSTRUCTION, AND
- SHOP DRAWINGS
- C. PROVIDE CONTACT INFORMATION ON NEAREST SOURCE OF SPARE PARTS AND SERVICE FOR
- D. PROVIDE MANUAL BOTH IN HARD COPY AND IN ELECTRONIC PDF FORMAT WITH SECTIONS LABELED AND BOOKMARKED.

11. DEMOLISHING EXISTING ITEMS:

A. COORDINATE DEMOLITION WORK WITH OWNER. COMPLETE DEMOLITION WORK IN AN APPROVED MANNER AND SCHEDULE TO NOT AFFECT OWNER OPERATIONS.

12. SALVAGE EQUIPMENT:

A. OWNER RETAINS THE RIGHT TO CLAIM SALVAGED MATERIALS. REMOVE AND DISPOSE OF ITEMS NOT CLAIMED BY THE OWNER. CONTRACTOR SHALL WORK WITH OWNER TO DETERMINE EQUIPMENT SALVAGE PROCESS.

13. ELECTRICAL WORK

- A. PROVIDE CONTROL WIRING FOR MECHANICAL EQUIPMENT SPECIFIED IN THIS SECTION.
 B. WIRING TO EQUIPMENT POWER INLET OR FROM OUTLETS IS SPECIFIED ELSEWHERE.
- PROVIDE WORK COMPLYING WITH APPLICABLE CODES AND THE NATIONAL ELECTRICAL CODE D. PROTECT LOW VOLTAGE CONTROL WIRING IN ACCESSIBLE AREAS IN CONDUIT OR SIMILAR. E. CONCEAL CONDUIT AND WIRING IN FINISHED SPACES UNLESS APPROVED OTHERWISE BY
- OWNER. SUPPLY MINIMUM 18 AWG LOW VOLTAGE WIRING AND COPPER CONDUCTORS.

PART 2 - PRODUCTS

DIV 23 - HVAC

- 1. GENERAL-DUTY VALVES FOR HVAC PIPING
- A. BALL VALVES:
- PROVIDE CLASS 125 WSP, BRONZE, ONE- OR TWO-PIECE BODY, FULL PORT BALL VALVE WITH TEFLON SEATS; STUFFING BOX RING; BLOW-OUT PROOF STEM; LEVER HANDLE; SOLDER OR THREADED ENDS;
- b. INSTALL VALVES WITH COLD WORKING PRESSURE RATING OF 125 PSIG AND MAXIMUM OPERATING TEMPERATURE OF 250 DEG F:

B. TWO-WAY VALVE

- PROVIDE VALVES COMPATIBLE SERVICED FLUID AND WITH NPT PIPE CONNECTIONS; BRASS BODY; PTFE SEAT; MAINTENANCE FREE SERVICING;
- . INSTALL VALVES WITH PRESSURE AND TEMPERATURE MINIMUM AND MAXIMUMS TO FIT APPLICATION AND CLOSE-OFF PRESSURE TO FIT APPLICATION;
- PROVIDE WITH ELECTRONIC CONTROL VALVE ACTUATOR;

- PROVIDE MSS SP 80, CLASS 150, VALVES WITH BRONZE BODY AND CAP; BRONZE SEAT; BUNA-N DISC: SOLDER OR THREADED ENDS:
- b. INSTALL VALVES WITH COLD WORKING PRESSURE RATING MINIMUM OF 125 PSIG, AND A MAXIMUM OPERATING TEMPERATURE OF 250 DEG F;

- a. PROVIDE VALVES WITH BRONZE BODY; BRASS OR STAINLESS-STEEL BALL OR PLUG, OR BRASS WITH EPDM COMPOSITION WASHER GLOBE TYPE CARTRIDGE; PTFE SEAT: LEVER HANDLE WITH MEMORY STOP TO RETAIN SET POSITION IF USED FOR SHUTOFF;
- . INSTALL VALVES WITH COLD WORKING PRESSURE RATING MINIMUM OF 125 PSIG, AND A MAXIMUM OPERATING TEMPERATURE OF 250 DEG F:

2. HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT STEEL PIPE SUPPORT:

- A. STEEL PIPE SUPPORT:
 - PROVIDE EPOXY COATED MALLEABLE IRON OR CARBON STEEL EQUIPMENT CONFORMING TO ASME B31.9 AND WITH ADJUSTABLE SWIVEL SPLIT RING FOR PIPE SIZES UP TO 1-1/2 INCH; HOT DIP GALVANIZED STEEL CHANNELS WITH WELDED SPACERS; HANGER RODS FOR MULTIPLE OR TRAPEZE HANGERS; EPOXY COATED STEEL RISER CLAMPS FOR VERTICAL SUPPORTS

- a. PROVIDE COPPER-PLATED, CARBON-STEEL ADJUSTABLE RING WITH HOT DIP GALVANIZED MILD STEEL THREAD ON BOTH ENDS, THREADED ON ONE END, OR CONTINUOUS THREADED
- . PROVIDE MALLEABLE IRON INSERTS WITH GALVANIZED STEEL SHELL; EXPANDER PLUG FOR THREADED CONNECTION WITH LATERAL ADJUSTMENT; TOP SLOT FOR REINFORCING RODS; LUGS FOR ATTACHING TO FORMS; SIZE INSERTS TO SUIT THREADED HANGER RODS;

3 VIBRATION AND SEISMIC CONTROLS FOR HVAC

- A. VIBRATION AND SEISMIC CONTROL FOR HVAC:
 - PROVIDE MECHANICAL EQUIPMENT WITH VIBRATION AND SEISMIC CONTROL PER
 MANUFACTURER RECOMMENDATIONS, BUILDING OCCUPANCY AND RISK CATEGORIES, AND CAPABLE OF WITHSTANDING EFFECTS OF EARTHQUAKE AND HIGH WIND EVENTS DETERMINED IN ACCORDANCE WITH ASCE/SEI 7-05, ASCE/SEI 7-10, OR ASCE/SEI 7-16

4. IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

- A. IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
 a. PROVIDE FACTORY FABRICATED PIPE MARKERS WITH FLEXIBLE PLASTIC PREFORMED TO
- b. PROVIDE ADHESIVE DIRECTIONAL ARROW TAPE ON BOTH SIDES OF THE PIPE MARKER WITH COLORING AND LETTERING CONFORMING WITH ASME A13.1.
- PROVIDE IDENTIFICATION AT TEES, VALVES, AND EQUIPMENT. PROVIDE VALVE TAG DIRECTORY ON WALL OF MECHANICAL ROOM
- 5. METERS AND GAUGES FOR HVAC PIPING

A PRESSURE GAUGES:

a. PROVIDE MINIMUM 3-1/2 INCH DIAMETER DIAL OF BOURDON TUBE TYPE AND WITH BRASS ROTARY TYPE MOVEMENT; CAST ALUMINUM BODY; 1 PERCENT OF FULL-SCALE ACCURACY; 1/4-INCH MALE NPT CONNECTIONS; RANGE APPROPRIATE TO APPLICATION SUCH THAT OPERATION CONDITIONS FALL NEAR MID-RANGE;

B. PRESSURE GAGE TAPS

PROVIDE 1/8-INCH NPT BRASS BALL VALVE WITH PRESSURE RATING OF 250 PSI;

C. STEM TYPE THERMOMETERS:

- a. PROVIDE DIGITAL SOLAR POWERED EQUIPMENT WITH 3/4 INCH NPT CONNECTION; 3-1/2-INCH-LONG BRASS STEM; DISPLAY DEGREES F WITH 30 TO 240 DEG F RANGE; COMPLYING WITH ASTM E77: 2 PERCENT ACCURACY: BRASS SEPARABLE SOCKET SUPPORTS;
- PROVIDE EXTRA LONG STEM FOR INSULATED PIPING;

6. HVAC INSULATION:

- A. DUCT INSULATION:
 - a. INSULATE DUCTS CONVEYING OUTSIDE AIR WITH 1-INCH THICK FIBERGLASS WITH FOIL
- b. INSULATE FROM THE OUTSIDE WALL PENETRATION TO THE CONNECTION WITH THE VENTILATION EQUIPMENT.

7. HVAC EQUIPMENT INSULATION

- A HVAC FOUIPMENT INSULATION a. PROVIDE HVAC EQUIPMENT WITH INSULATION WITH SURFACE-BURNING CHARACTERISTICS DETERMINED BY TESTING IDENTICAL PRODUCTS IN ACCORDANCE WITH ASTM E84; FLAME-
- SPREAD INDEX OF 25 OR LESS, AND SMOKE-DEVELOPED INDEX OF 50 OR LESS. PROVIDE WITH ADHESIVE MATERIALS COMPATIBLE WITH INSULATION MATERIALS, JACKETS, AND SUBSTRATES AND FOR BONDING INSULATION TO ITSELF AND TO SURFACES TO BE INSULATED UNLESS OTHERWISE INDICATED.

8. HVAC PIPING INSULATION:

- A. HVAC PIPING INSULATION:
- a. INSULATE HYDRONIC PIPING WITH PRE-FORMED FIBERGLASS INSULATION WITH ALL-SERVICE JACKET; MINIMUM THICKNESS OF 1/2-INCH FOR 1-1/4 INCH PIPE AND SMALLER, AND 1 INCH FOR PIPING 1-1/2 INCH AND LARGER:
- PROVIDE PCV OR ALUMINUM JACKET FOR PIPING WITHIN 6 FEET OF THE FLOOR IN
- c. PROVIDE SEALED ALUMINUM JACKET WITH COMPLETE VAPOR BARRIER FOR EXTERIOR GLYCOL PIPING:
- d. INSULATE REFRIGERANT PIPING SUCTION AND LIQUID WITH 1/2-INCH ELASTOMERIC FOAM.

9. INSTRUMENTATION AND CONTROL FOR HVAC

A. CONTROLS:

- a. PROVIDE FACTORY-INSTALLED UNIT CONTROLS WITH COMMUNICATIONS VIA BACNET. ENABLE, DISABLE, AND MODE SELECT VIA BACNET.
- COORDINATE WITH EXISTING CONTROLS TO AVOID CONFLICT

10. ACTUATORS AND OPERATORS:

A. CONTROL VALVES:

- a. ELECTRIC AND ELECTRONIC CONTROL VALVE ACTUATORS:
 - PROVIDE MOTOR OPERATED MODULATING ACTUATOR CAPABLE OF CLOSING VALVE AGAINST SYSTEM PUMP SHUTOFF HEAD AND SUPPLIED WITH LOCAL POSITION INDICATOR: EXTERNAL MANUAL ADJUSTMENT MECHANISM TO ALLOW MANUAL POSITIONING WHEN THE ACTUATOR IS NOT POWERED; SMOOTH ACTUATION ACROSS FULL RANGE; POSITION FEEDBACK THROUGH VOLTAGE SIGNAL FOR REMOTE MONITORING; CAPABLE OF OPERATION FROM FULLY CLOSED TO FULLY OPEN WITH 60 SECONDS; FOR USE WITH TWO- AND THREE-WAY MODULATED VALVES AS SPECIFIED IN

B. CONTROL DAMPERS:

- a. OUTSIDE AIR AND RELIEF AIR DUTY:
 PROVIDE WITH THERMALLY EFFICIENT INSULATED BLADES
- · PROVIDE WITH V-GROOVE BLADES.

a. PROVIDE ELECTRIC DAMPER ACTUATORS SIZED WITH ADEQUATE TORQUE FOR APPLICATION

11. SENSORS AND TRANSMITTERS

A. DIFFERENTIAL PRESSURE SENSORS

 PROVIDE DIFFERENTIAL PRESSURE SENSORS COMPLYING WITH RELEVANT ASHRAE, AIA, CDC, AND USP STANDARDS; LISTED FOR USE IN AIRBORNE INFECTION ISOLATION (AII) ROOMS; COMPATIBLE WITH BUILDING AUTOMATION SYSTEM [VIA][BACNET MS/TP][LONWORKJĮ, OR MODBUSJ; WALL MOUNTED DIGITAL INTERFACE WITH AUDIBLE AND VISUAL ALARMS TO ALERT ON UNSAFE CONDITIONS; RANGE OF MINUS 0.2000 INCHES TO PLUS 0.2000 INCHES OF WATER AND ACCURACY OF PLUS/MINUS 10 PERCENT OF READING.

12. HVAC PIPING

A. HYDRONIC PIPING:

a PROVIDE TYPE I COPPER CLASS 1 PIPING WITH SOLDERED BRAZED OR MECHANICAL COMPRESSION JOINT (PRO-PRESS) CONNECTIONS; SCHEDULE 40 STEEL, WELDED OR HREADED, MALLEABLE IRON FITTINGS;

B. FLEXIBLE CONNECTORS

a. PROVIDE CORRUGATED STAINLESS STEEL HOSE WITH SINGLE LAYER OF STAINLESS-STEEL EXTERIOR BRAIDING; MINIMUM 9 INCHES LONG WITH COPPER TUBE ENDS;

- a. PROVIDE WITH BRASS BODY; BOLTED COVER; BOTTOM DRAIN CONNECTION; THREADED ENDS: 20-MESH STAINLESS-STEEL STRAINER OR PERFORATED STAINLESS-STEEL BASKET: PROVIDE WITH MINIMUM COLD WORKING PRESSURE OF 125 PSIG
- D. UNIONS FOR COPPER PIPING: PROVIDE WITH CLASS 150, BRONZE UNION WITH BRAZED JOINTS;

E. PRESSURE TEMPERATURE TAP "PETE'S PLUG":

a. PROVIDE WITH SELF-CLOSING NEOPRENE OR NORDEL VALVES; ATTACHED CAP FOR SECONDARY SEAL; BRASS OR STAINLESS-STEEL HOUSING; AND COMPATIBLE WITH 1/8, 1/4, AND 1/2 NPT PIPE CONNECTIONS

A. PROVIDE GALVANIZED STEEL EXPOSED CASING SURFACES WITH MANUFACTURER APPLIED CORROSION RESISTANT FINISH EXCEEDING 2,500 HOUR SALT SPRAY TEST AND IS DESIGNED FOR OUTDOOR INSTALLATION: COMPLETE WITH WEATHER PROTECTION FOR COMPONENTS. AND CONTROLS; REMOVABLE PANELS FOR REQUIRED ACCESS TO COMPRESSORS CONTROLS, CONDENSER FANS, MOTORS, AND DRIVES;

14. AIR DUCT ACCESSORIES

A. DAMPERS:

a. PROVIDE GALVANIZED STEEL MANUFACTURED DAMPER WITH LINKAGE OUT OF AIRSTREAM;
 SUITABLE FOR HORIZONTAL OR VERTICAL AIRFLOW APPLICATIONS;

a. PROVIDE SOUND BOOT ON RETURN AIR PATHS TO PLENUM; SOUND PROOFING SHALL BE 1 INCH THICK FIBERGLASS DUCT BOARD; PROVIDE HANGERS AND SUPPORTS IN ACCORDANCE WITH CODE: PLENUM RATED:

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- a. PROVIDE FILTER RACK SIZED TO FIT IN OUTSIDE AIR DUCTWORK; SUPPLY WITH MERV 8
- a. PROVIDE MEDIUM EFFICIENT THROWAWAY TYPE WITH 2-INCH THICK PLEATED COTTON FABRIC; WELDED WIRE GRID; RATED AT 700 CFM PER 20 BY 20-INCH FILTER AT 25-30 PERCENT EFFICIENCY; 90 PERCENT ARRESTANCE; IN ACCORDANCE WITH ASHRAE 52-76;
- A. PROVIDE TO ISOLATE DUCT SYSTEM FROM SOURCE OF VIBRATION OR NOISE; FABRICATE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS; UL LISTED FIRE RETARDANT NEOPRENE COATED WOVEN GLASS FIBER FABRIC CONFORMING TO NFPA 90A, 30OZ/SQ-YARD MINIMUM DENSITY; 3 INCHES WIDE FABRIC WIDTH CRIMPED INTO 3 INCH WIDE, 24 GAGE GALVANIZED STEEL METAL EDGING STRIP: PLENUM RATED:
- a. PROVIDE INSULATING STRIP OVER FLEXIBLE CONNECTION TO BLOCK FROM THE SUN.
- B AIR VENTS
- a. PROVIDE "COIN-OPERATED" AIR VENT OPERATOR COMPATIBLE WITH SCREWDRIVER BIT AND WITH NPS 1/2 INLET CONNECTIONS; NPS 1/8 DISCHARGE CONNECTION;
 b. PROVIDE WITH CWP RATING OF 150 PSIG AND A MAXIMUM OPERATING TEMPERATURE OF
- B. DRAIN VENT
- a. PROVIDE NPS 3/4 BRASS GARDEN/DRAIN HOSE CONNECTION WITH BRASS END CAP;
- A. LOW POINT DRAIN:
- a. PROVIDE NPT 3/4 BRASS GARDEN/DRAIN HOSE CONNECTION WITH BRASS END CAP;

PART 3 - EXECUTION

- A. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND PER INDUSTRY STANDARDS.
- B. PROVIDE CLEARANCE IN HANGERS AND FROM STRUCTURE AND OTHER EQUIPMENT FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS.

 C. EXAMINE AREAS TO RECEIVE EQUIPMENT FOR COMPLIANCE WITH REQUIREMENTS FOR
- INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK
- D. EXAMINE ROUGHING-IN FOR [PIPING AND]ELECTRICAL CONNECTIONS TO VERIFY ACTUAL LOCATIONS BEFORE EQUIPMENT INSTALLATION.

 E. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN

2. INSULATION:

- A. INSTALL INSULATION TO ALLOW FOR ACCESS DOORS AND PANELS TO REMAIN UNINSULATED
- B. INSTALL WITH BUTT JOINTS AND PATCH HOLES, TEARS, AND JOINTS WITH FACING MATERIALS TO PROVIDE A CONTINUOUS AND UNPUNCTURED VAPOR-BARRIER.
- C. INSULATION SHALL BE INSTALLED BY SKILLED APPLIERS DIRECTLY EMPLOYED BY A FIRM SPECIALIZING IN THE WORK

A. LOCATE VALVES, GAGES, FITTINGS, EQUIPMENT, AND SPECIALTIES REQUIRING FREQUENT READING, CLEANING, ADJUSTMENT, INSPECTION, REPAIR, OR REMOVAL IN A CONVENIENT AND ACCESSIBLE LOCATION.

4. CLEANING:

- A. CLEAN EXISTING DUCT INTERIORS AND DIFFUSERS REMOVED FOR REINSTALLATION IN ACCORDANCE WITH ACR, THE NATIONAL AIR DUCT CLEANERS ASSOCIATION STANDARD FOR THE ASSESSMENT CLEANING AND RESTORATION OF HVAC SYSTEMS
- 5. PIPING, VALVES, AND SPECIALTIES:
- A. PREPARE AND MAKE FUSION JOINTS ACCORDING TO MANUFACTURER'S REQUIREMENTS USING APPLICABLE TOOLS.
- B. INSTALL ANCHOR POINTS SPACED NO MORE THAN 120 FEET APART.
- C. INSTALL SPECIALTIES IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS.
- D. PROVIDE MANUAL AIR VENTS AT SYSTEM HIGH POINTS.
- E. PROVIDE VALVED DRAIN AND HOSE CONNECTION ON STRAINER BLOW DOWN CONNECTION. F. CONNECT PIPING TO APPLICABLE EQUIPMENT FACTORY, HOT-WATER PIPING PACKAGE. INSTALL PIPING PACKAGE IF SHIPPED LOOSE.

6. PIPING SYSTEM TEST AND START-UP:

- A. FLUSH AND CLEAN GLYCOL SYSTEM (WITHIN PROJECT SCOPE) PRIOR TO INSTALLATION OF GLYCOL. CLEAN GLYCOL PIPING WITH TRISODIUM PHOSPHATE MIXTURE PRIOR TO FILLING. B. CLEAN STRAINERS AND STARTUP SCREENS AFTER FLUSHING.
- C. TEST PIPING SYSTEMS IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
- D. PROTECT EQUIPMENT, GAGES, CONTROLS, AND THERMOMETER WELLS DURING TESTS.
- F TEST WATER AND STEAM PIPING HYDROSTATICALLY AT 125 PSI FOR MINIMUM OF ONE HOUR SYSTEMS SHALL REMAIN TIGHT WITHOUT LEAKS, DISPLACEMENT, OR STRAINING UNDER TESTING CONDITIONS. CORRECT DEFICIENT WORK RESULTING IN LEAKS, DISPLACEMENT, OR STRAINING AND RETEST THE SYSTEM UNTIL NO DEFICIENCIES REMAIN.

7. SHEET METAL DUCTS:

- A. FABRICATE SHEET METAL DUCTS OF GALVANIZED STEEL AND CONSTRUCT AND INSTALL PER LATEST EDITION OF SMACNA.
- B. SEAL JOINTS WITH MASTIC JOINT SEALANT.
- C. ANCHOR DUCTS TO STRUCTURE AT INTERVALS NO GREATER THAN 10 FEET.
- D. SUSPEND EXPOSED DUCTS FROM ROD.
- CAULK, SEAL, AND PROVIDE SHEET METAL COLLAR AT DUCT PENETRATIONS THROUGH FLOORS AND WALLS TO NEATLY COVER OPENING AND PROVIDE AIRTIGHT SEAL
- INSTALL MANUALLY OPERATED DAMPERS WHERE INDICATED ON THE DRAWINGS, AND TO ENABLE AIR VOLUME ADJUSTMENT AT EACH AIR INLET AND OUTLET.
- G. LOCATE ACCESS DOORS WHERE SHOWN. PROVIDE FLEXIBLE CONNECTORS AT FAN UNIT DUCT CONNECTIONS.

8. TESTING, ADJUSTING, AND BALANCING (TAB):

- A. PROVIDE TAB SERVICES FOR THE FOLLOWING SYSTEMS: AIR, HYDRONIC, SCHEDULED EQUIPMENT
- PERFORM TAB IN ACCORDANCE WITH NEBB STANDARDS.
- D. SUBMIT BALANCING REPORT AT THE COMPLETION OF EACH PROJECT PHASE.

 D. SUBMIT BALANCING REPORT AT THE COMPLETION OF EACH PHASE.
- BALANCE HYDRONIC FLOW RATES AND AIRFLOW RATES WITHIN PLUS OR MINUS 10 PERCENT OF RATES INDICATED ON DRAWINGS.



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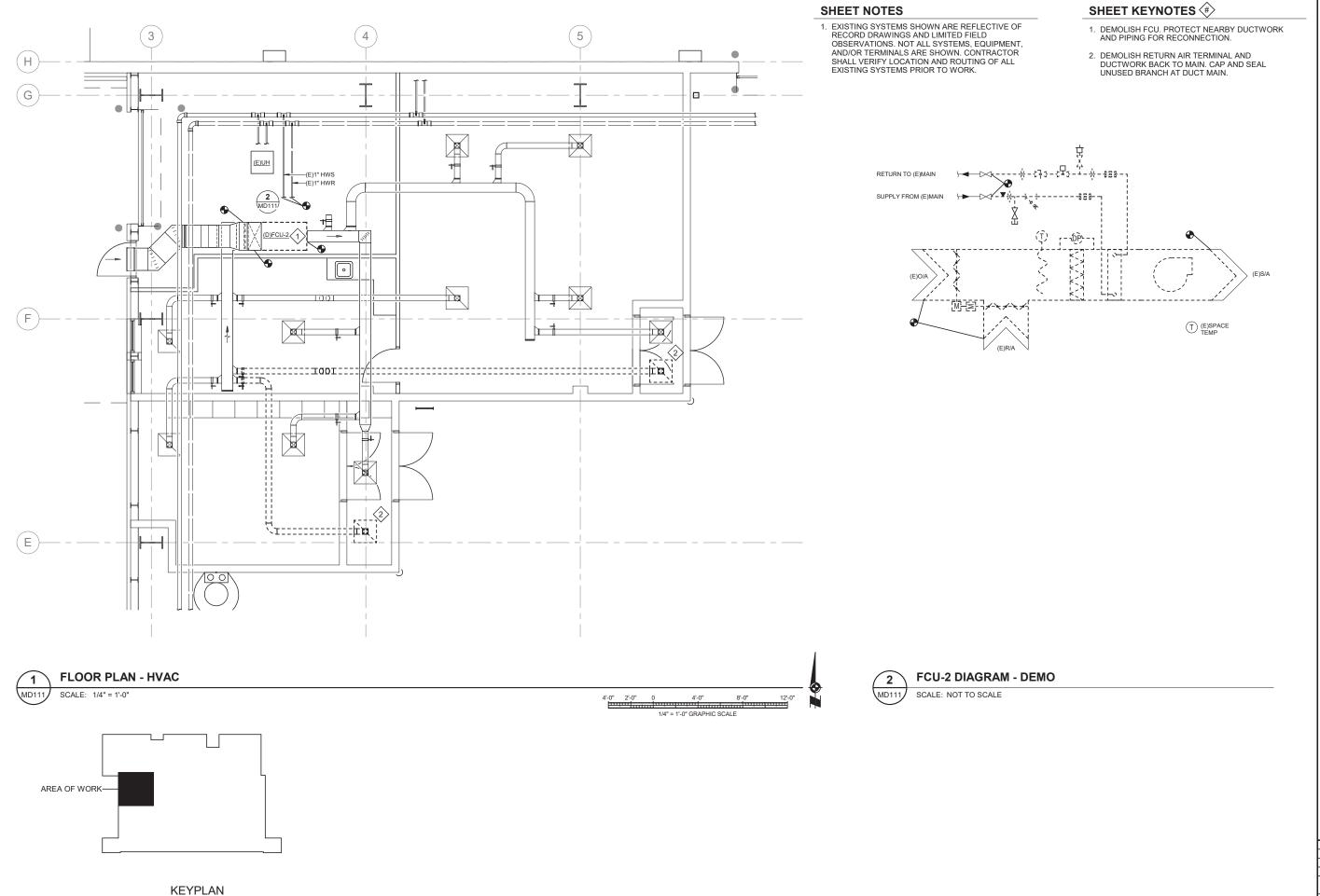
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DEMOLITION PLAN - HVAC

CONSTRUCTION DOCUMENTS

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NO SCALE

SHEET NOTES

- 1. EXISTING SYSTEMS SHOWN ARE REFLECTIVE OF RECORD DRAWINGS AND LIMITED FIELD OBSERVATIONS. NOT ALL SYSTEMS, EQUIPMENT, AND/OR TERMINALS ARE SHOWN. CONTRACTOR SHALL VERIFY LOCATION AND ROUTING OF ALL EXISTING SYSTEMS PRIOR TO WORK.
- 2. BALANCE FCU-2 VENTILATION TO PROVIDE MINIMUM OF 0.1 IN H2O OF POSITIVE PRESSURE IN VESTIBULE SPACES SEPARATING HANGAR FROM OTHER SPACES.

SHEET KEYNOTES (#>

1. PROVIDE VISUAL INDICATION VIA MECHANICAL AIR PRESSURE MONITOR DEVICE WITH FIRE RATING MATCHING THE EXISTING WALL, MONITOR SHALL BE SET TO PROVE THE VESTIBULE IS POSITIVELY PRESSURIZED RELATIVE TO THE HANGAR. BASIS OF DESIGN (TYP. OF 2): AIRFLOW DIRECTION INCORPORATED BALL-IN-THE-WALL ADI-69-V



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FLOOR PLAN - HVAC

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FCU-2 DIAGRAM & CONTROLS

SCALE: NOT TO SCALE

AUTO AIR VENT & 1/4 TURN VALVE -FLEX CONNECTION TYP BALANCE VALVE, TYP RETURN TO (E)MAIN SUPPLY FROM (E)MAIN (E)ISOLATION VALVE, TYP STRAINER W/ BI OWDOWN P/T PORT, TYP -2-WAY CONTROL VALVE (E)O/A COORDINATE WITH EXISTING DUCT SIZES TO AVOID CONFLICT, PROVIDE FLEX DUCT CONNECTION(S) TO (E)DUCTS SUPPORT/BRACE (E)SPACE (E)SPAC (E)R/A

COORDINATE WITH EXISTING CONTROLS TO AVOID CONFLICT. CONTROLS MUST NOT LOSE ANY CURRENT FUNCTIONALITY.

OFF MODE:
FAN SHALL BE OFF AND HEATING COIL CONTROL VALVE SHALL MODULATE CLOSED UNLESS THE MIXED AIR TEMPERATURE FALLS BELOW 45 DEGREES.

WHEN NOT ACTIVATED, THE OUTSIDE AIR DAMPER SHALL SPRING-FAIL CLOSED AND THE RETURN AIR DAMPER SHALL SPRING-FAIL OPEN.

ANTIO MODE: VENTILATION FAN ASSEMBLY SHALL BE ACTIVE WHEN OCCUPIED OR TO MAINTAIN POSITIVE PRESSURE IN SEPARATION VESTIBULES.

OUTSIDE AIR TEMPERATURE ABOVE 65°F:
THE RETURN DAMPER SHALL MODULATE TO VENTILATION FOR COOLING TO THE FULLEST EXTENT POSSIBLE (ADJUSTABLE).

OUTSIDE AIR TEMPERATURE BELOW 65°F:
THE RETURN AND OUTSIDE AIR DAMPER SHALL MODULATE TO PROVIDE AN AVERAGE
DISCHARGE AIR TEMPERATURE OF 55 DEGREES F (ADJUSTABLE) FOR COOLING, ON A
CALL FOR HEAT THE OUTSIDE AIR DAMPER TO BE AT A MINIMUM (NOT LESS THAN 25%
OUTSIDE AIR). THE HEATING COIL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT.

REVISIONS

C. FAN FAILURE SHALL GENERATE AN ALARM.

D. HIGH TEMPERATURE ALARM SHALL BE GENERATED IF THE ROOM TEMPERATURE RISES ABOVE 90 DEGREES (ADJUSTABLE). LOW TEMPERATURE ALARM SHALL BE GENERATED IF THE ROOM TEMPERATURE IS BELOW 55 DEGREES F (ADJUSTABLE).

E. THE FOLLOWING SHALL BE SHOWN ON THE GRAPHICAL USER INTERFACE:

POINTS FAN START/STOP ENABLE FAN STATUS ROOM TEMPERATURE ROOM TEMP SETPOINT OA/RA DAMPER POSITION RELIEF DAMPER POSITION DISCHARGE AIR TEMP MAINTENANCE MAINTENANCE



PAYMENT BOND

ALASE	Bond No	
	For	
	Replace HVAC Fuels Area H12, IFQ 09-004-26 Project Name and Number	
KNOW ALL WHO SHALL S	EE THESE PRESENTS:	
That		
of	as l	Principal,
and		
of		Surety,
firmly bound and held unto the	e State of Alaska in the penal sum of	Dollars
(\$) good and lawful money of the United States of America for the payment whereof,	-
	e State of Alaska, we bind ourselves, our heirs, successors, executors, administrators,	and assigns,
	has entered into a written contract with said State of Alaska, on the of of the above-referenced project, said work to be done according to the terms of said con	
of law and pay, as they becomunder said contract, whether s	itions of the foregoing obligation are such that if the said Principal shall comply with all ne due, all just claims for labor performed and materials and supplies furnished upon or aid labor be performed and said materials and supplies be furnished under the original ty authorized modifications thereto, then these presents shall become null and void; of ffect.	r for the work l contract, any
IN WITNESS WHEREOF, we	have hereunto set our hands and seals at day of A.D., 20	,
	Principal:	
	Address:	
	By:	
	Contact Name:	
	Phone: ()	
Surety:		
Address:		
By:		
Contact Name:		
Phone: ()		

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The offered bond has been checked for adequacy under the applicable statutes and	The offered bond has been checked for adequacy under the applicable statutes and regulations:						
Alaska Department of Military and Veterans Affairs Authorized Representative	Date						

See Instructions on Reverse

INSTRUCTIONS

- 1. This form, for the protection of persons supplying labor and material, shall be used whenever a payment bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
- 2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
- 3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
- 4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
- 5. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

Form 25D-12DMVA (11/10) Page 2 of 2



PERFORMANCE BOND

OF ALASKIP	Don	d No.
	For	u 110
	Replace HVAC Fuels Area H12, IFQ 09-004-26	
	Project Name and Number	
KNOW ALL WHO SHALL S	SEE THESE PRESENTS:	
That		
of		as Principal,
of		as Surety,
firmly bound and held unto th	ne State of Alaska in the penal sum of	Dollars
(\$	good and lawful money of the United States of America for the	e payment whereof,
	the State of Alaska, we bind ourselves, our heirs, successors, execut	
	al has entered into a written contract with said State of Alaska, on the on of the above-named project, said work to be done according to the	
complete all obligations and Military and Veterans Affairs project, then these presents sh	ditions of the foregoing obligation are such that if the said Principal work under said contract and if the Principal shall reimburse upon some such that if the said Principal shall reimburse upon some sums paid him which exceed the final payment determined to the sail become null and void; otherwise they shall remain in full force and the have hereunto set our hands and seals at day of A.D., 20	on demand of the Department of to be due upon completion of the
	Principal:	
	Address:	
	By:	
	Contact Name:	
	Phone: ()	
Surety:		
Address:		
By:		
Contact Name:		
Phone: ()		
The of	ffered bond has been checked for adequacy under the applicable statutes and	regulations:
Alaska Department of Militar	ry and Veterans Affairs Authorized Representative	Date
	See Instructions on Reverse	

Form 25D-13DMVA (11/10) Page 1 of 2

INSTRUCTIONS

- 1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
- The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
- 3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
- 4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
- 5. The bond shall be signed by authorized persons. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.

Form 25D-13DMVA (11/10) Page 2 of 2

BID BOND

For											
Replace HVAC Fuels Area H12, IFQ 09-004-26											
	Project Name and Number										
PRINCIPAL (Legal name and business address): TYPE OF ORGANIZATION:											
PRINCIPAL (L	legal name and business ad	idress):		Г	Individ						
				[] Joint V		PartnershipCorporation				
				S	ΓΑΤΕ OF I	NCORPO	ORATION:				
SURETY(IES)	(Name and business addre	ss):									
A.		B.				C.					
PENAL SUM (OF BOND:					DATE	OF BID:				
the amount star successors, join THE CONDITI date as shown	ted above, for the paymer tly and severally, by this in ON OF THE FOREGOIN above, on the above-ref	nt of which sunstrument. G OBLIGATI erenced Proje	ION is that the	ade, e Pri ance	we bind one one of the control with control	ourselves submitted ract docu	ate of Alaska), in the penal sum of and our legal representatives and If the accompanying bid in writing, aments filed in the office of the and in the amount stated above.				
If the Principal		s offered the	proposed cont	tract	for award	, and if t	he Principal fails to enter into the				
If the Principal	enters into the contract, the	en the foregoin	ng obligation is	is nu	ll and void	•					
PRINCIPAL											
Signature(s)	1.		2.				3.				
			2.								
Name(s) & Title(s) (Typed)	1.	3.									
	See Instru	uctions on Re	verse				Corporate Seal				

Form 25D-14DMVA (11/10) Page 1 of 2

CORPORATE SURETY(IES)

Name(s)

& Titles (Typed)

Surety A	Name of Corporation		State of Incorporation	Liability Limit \$		
Signature(s)	1.	2.				
Name(s) & Titles (Typed)	1.	2.		Corporate Seal		
Surety B	Name of Corporation		State of Incorporation	Liability Limit \$		
Signature(s)	1.	2.		Corporate		
Name(s) & Titles (Typed)	1.	2.		Seal		
Surety C	Name of Corporation		State of Incorporation	Liability Limit \$		
Signature(s)	1.	2.				
ı				Corporate		

INSTRUCTIONS

2.

Seal

- 1. This form shall be used whenever a bid bond is submitted.
- 2. Insert the full legal name and business address of the Principal in the space designated. If the Principal is a partnership or joint venture, the names of all principal parties must be included (e.g., "Smith Construction, Inc. and Jones Contracting, Inc. DBA Smith/Jones Builders, a joint venture"). If the Principal is a corporation, the name of the state in which incorporated shall be inserted in the space provided.
- 3. Insert the full legal name and business address of the Surety in the space designated. The Surety on the bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. Individual sureties will not be accepted.
- 4. The penal amount of the bond may be shown either as an amount (in words and figures) or as a percent of the contract bid price (a not-to-exceed amount may be included).
- 5. The scheduled bid opening date shall be entered in the space marked Date of Bid.
- 6. The bond shall be executed by authorized representatives of the Principal and Surety. Corporations executing the bond shall also affix their corporate seal.
- 7. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
- 8. The states of incorporation and the limits of liability of each surety shall be indicated in the spaces provided.
- 9. The date that bond is executed must not be later than the bid opening date.

Form 25D-14DMVA (11/10) Page 2 of 2

ALASKA BIDDER PREFERENCE CERTIFICATION

In response to the advertised procurement for:	
Project Name and Number: Replace HVAC Fuels	Area H12, IFQ 09-004-26
Bidder/Proposer (company name):	
Procurement preferences under the Alaska Procureme	ska Bidder Preference int Code are benefits that the State grants only to qualified igible "Alaska Bidder", the Department will apply a five l.
A bidder that claims the Alaska Bidder Preference m under the heading "Alaska Bidder Certification" is tru	Alaska Bidder Preference ust review and then certify that each statement appearing i.e. The individual that signs the certification shall include inization, <i>e.g.</i> , sole proprietor, partner, etc. If a bidder fails ot apply the claimed preference.
Alaska Bidd The bidding entity for which I am the duly authorized	ler Certification representative:
(A) Holds a current Alaska business license;	
(B) Is submitting a bid or proposal for goods, se bidder's current Alaska business license;	ervices, or construction under the name appearing on the
(C) Has maintained a place of business in the Stat period of six months immediately preceding the	e staffed by the bidder or an employee of the bidder for a ne date of the proposal;
proprietor is a resident of the State, is a lim	der the laws of the State, is a sole proprietorship and the ited liability company organized under AS 10.50 and all rtnership under former AS 32.05, AS 32.06, or AS 32.11
(E) If a joint venture, is composed entirely of verthis Alaska Bidder Certification.	ntures that qualify under the four preceding paragraphs of
	alty of perjury that I am the duly appointed representative me to legally bind it concerning its proposal, and that the
By (signature)	Date
Printed name	Alaska Business License Number

Title:

ALASKA PRODUCT PREFERENCE WORKSHEET (See Reverse Side for Instructions) Project Name and Number: Replace HVAC Fuels Area H12, IFQ 09-004-26 Bid Phase: Bidder: By applying my signature below, I certify under penalty of perjury that: 1. This worksheet accurately reports the type and quantity of product(s) that: (a) qualify for application of the Alaska Product Preference under AS 36.30.321 et seq. and (b) this bidder will use in performing the advertised project, if awarded the contract; and 2. All listed product(s) are specified for use on the project and will be permanently incorporated; and 3. I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning its proposal. By (signature) Date CLASS & TOTAL REDUCTION **PRODUCT** MANUFACTURER PREFERENCE **DECLARED AMOUNT** PERCENTAGE **VALUE**

Form 25D-20 (12/19) 00321 Page 1 of 2

TOTAL

INSTRUCTIONS FOR ALASKA PRODUCTS PREFERENCE WORKSHEET

Special Notice: All procurements, except those funded from Federal sources, shall contain Contract provisions for the preference of Alaska products. To be considered for the Alaska Product Preference, each product listed by the Bidder on this worksheet must have current certification from the Alaska Products Preference Program at the time of Bid Opening or the proposal due date. A product with expired certification at the bid opening or proposal due date will not be considered eligible. Products that are not specified for use on the project will not be considered eligible.

The Alaska Product Preference Program List of certified products is available online at:

https://www.commerce.alaska.gov/web/dcra/AlaskaProductPreferenceProgram.aspx or may be obtained by contacting Dept. of Commerce & Economic Development Alaska Division of Community and Regional Affairs, Alaska Products Preference Program, 550 W. 7th Ave., Suite 1650, Anchorage AK 99501-3510; Phone: (907) 269-4501 Fax: (907) 269-4563, E-mail: madeinalaska@alaska.gov

BIDDERS INSTRUCTIONS:

A. General. The contracting Agency may request documentation to support entries made on this form. False presentations may be subject to AS 36.30.687. All Bidder's entries must conform to the requirements covering bid preparations in general. Discrepancies in price extensions shall be resolved by multiplying the declared total value times the preference percentage and adjusting any resulting computation(s) accordingly.

B. Form Completion - BASIC BIDS.

- (1) Enter project number and name, the words "Basic Bid" and the CONTRACTOR'S name in the heading of each page as provided.
- (2) The Bidder shall compare those candidate products appearing on the preference listing (see Special Notice comments above) against the requirements of the technical specifications appearing in the contract documents. If the Bidder determines that a candidate product can suitably meet the contract requirements, then that product may be included in the worksheet as follows.
- (3) For each suitable product submitted under the "Basic Bid" enter:
 - The product name, generic description and its corresponding technical specification section number under the heading "PRODUCT",
 - The company name of the Alaska producer under the heading "Manufacturer", and
 - The product class (I, II, or III) and preference percentage (3, 5, or 7% respectively) under the "CLASS/% heading.
- (4) For each product appearing on the list and to be utilized by the CONTRACTOR enter:
 - Under the heading "TOTAL DECLARED VALUE" the manufacturer's quoted price of the product, (caution: this value is to be the
 manufacturer's quoted price at the place of origin and shall not include costs for freight, handling or miscellaneous charges of
 incorporating the product into the Work,) and
 - The resulting preference i.e. the preference percentage times the total declared value amount under the heading "REDUCTION AMOUNT".
- (5) Continue for all "suitable" basic bid products. If the listing exceeds one page enter the words "Page # __ SUB" in front of the word "TOTAL" and on the first line of the following pages enter "SUBTOTAL OF REDUCTION AMOUNT FROM PREVIOUS PAGE".
- (6) On the final page of the listing enter "BASIC BID PREFERENCE GRAND" immediately before the word "TOTAL".
- (7) Total the entries in the "REDUCTION AMOUNT" column for each page by commencing at the first entry for that page. If a continuation page exists, ensure that the subtotal from the previous page is computed into the running total. Number pages as appropriate.
- (8) Compute a Grand Total for the Basic Bid Preference. Enter the amount on the final page of the worksheet. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Basic Bid Schedule.) Submit worksheet(s) with the Bid Schedule.

C. Form Completion – ALTERNATE BIDS.

- (1) Enter project number and name, the words "ALTERNATE BID #__", and CONTRACTOR'S name in the heading of each page as provided.
- (2) On the first entry line enter "ADDITIONAL ALASKA PRODUCTS FOR ALTERNATE BID #__", and repeat procedures 2 through 5 under part B these Bidder's instructions except that references to "Basic Bid" shall be replaced with the words "Alternate Bid #__"."
- (3) Following the listing of all additional Alaska products enter the words "ADDITIONAL PRODUCTS PREFERENCE FOR ALTERNATE BID #__ SUBTOTAL" and enter a subtotal amount for all additional products as listed. Subtotal amount to be determined by adding all additional product entries in the "REDUCTION AMOUNT" column.
- (4) Skip three lines and enter "LESS THE FOLLOWING NON-APPLICABLE ALASKA PRODUCTS:
- (5) Beginning on the next line, enter the product name and manufacturer of each Alaska Product appearing on the "Basic Bid" listing which would be deleted or reduced from the Project should the "Alternate Bid" be selected. Details of entry need only be sufficient to clearly reference the subject product. (i.e. "Pre-hung doors by Alaska Door Co., Anchorage.") Products being reduced shall specify the amount of the reduction. Should no products require deletion enter "None". When a product is listed as a "NON-APPLICABLE ALASKA PRODUCT" for this alternate bid and if under the basic bid the Bidder received a preference on his basic bid as a result of that product, then the applicable entries under the headings "TOTAL DECLARED VALUE" and "REDUCTION AMOUNT" (for each product and from the basic bid listing) shall also be entered into the corresponding headings of this form. Where only a portion of the products has been deleted, the entry (which will differ from those on the basic bid listing) may be "pro-rated" or as otherwise substantiated.
- (6) Following the listing of all non-applicable Alaska products enter the words "NON-APPLICABLE PRODUCTS PREFERENCE FROM BASIC BID ___ SUBTOTAL" and enter a subtotal amount for all non-applicable products listed. Subtotal amount to be determined by adding all non-applicable entries in the "REDUCTION AMOUNT" column.
- (7) At the bottom of the final page enter the words "ALTERNATE BID #____ PREFERENCE GRAND" immediately before the word "TOTAL".
- (8) Compute a Grand Total for the Alternate Bid Preference (for Alternate #___) by subtracting the non-applicable product preference subtotal from the additional product preference subtotal. Enter on the final page. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Alternate Bid Schedule.) Submit separate worksheet(s) with each Alternate Bid

ALASKA VETERAN PREFERENCE CERTIFICATION

In response to the advertised procurement for: Project Name and Number Replace HVAC Fuels Area H12, IFQ 09-004-26 Bidder (Contractor) **Operation of Alaska Veteran Preference** Procurement preferences under the Alaska Procurement Code are benefits that the State grants only to qualified bidders. Under AS 36.30.321, an eligible entity receives a five percent preference to the price of in the bidder's proposal if the bidder meets three requirements. The bidder must be: 1. an "Alaska Veteran"; 2. a "Qualifying Entity"; and 3. an "Alaska Bidder". Unless a bidder satisfies all three requirements and furnishes corresponding certifications, it is not eligible for the Alaska Veteran Preference. This preference may not exceed \$5,000. **Instructions regarding Alaska Veteran Preference** A bidder that claims the Alaska Veteran Preference must review and complete the "Alaska Veteran Certification", the "Qualifying Entity Certification", and the "Alaska Bidder Certification". The individual that signs a certification shall include his/her printed name and position within bidder's organization, e.g., sole proprietor, partner, etc. If a bidder fails to submit properly completed certifications, the Department will not apply the claimed preference. **Alaska Veteran Certification** (To be completed by individual(s) upon whom the bidder relies in claiming the Alaska Veteran status. If bidder is a partnership, limited liability company, or corporation, then a majority of partners, members, or shareholders who are Alaska Veterans must sign this Alaska Veteran Certification for the Bidder to be eligible for this preference.) I hereby represent to the Department that: I served in the armed forces of the United States, a reserve unit of the United States armed forces, the Alaska Territorial Guard, the Alaska Army National Guard, the Alaska Air National Guard, or the Alaska Naval Militia: and I was separated from service under a condition that was not dishonorable; and I am Alaska resident in that I am physically present in the State of Alaska with the intent to remain in the State indefinitely and to make a home in the State. I certify under penalty of perjury that the foregoing statements are true and correct as they apply to me. By (signature)

Date

Title

Printed name

Qualifying Entity Veteran Certification The bidding entity for which I am the duly authorized representative is a: (Check the appropriate box) sole proprietorship owned by an Alaska Veteran; partnership under AS 32.06 or AS 32.11 and a majority of the partners are Alaska Veterans; ☐ limited liability company organized under AS 10.50 and a majority of the members are Alaska Veterans; corporation that is wholly owned by individuals and a majority of the individuals are Alaska Veterans. By applying my signature below, I certify under penalty of perjury that I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning the proposal and that the statement I have acknowledged above by checking the appropriate box is true and correct. By (signature) Date Printed name Title **Alaska Bidder Certification** (To complete your claim for the Alaska Veteran Preference, you must also submit an Alaska Bidder Certification, which the bidder can view, download, and print from the AKDOT&PF's Bid Express Proposal page.)

CERTIFICATION REGARDGING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSATCTIONS

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98, Section 98.510, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988, Federal Register (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ THE INSTRUCTIONS ON THE FOLLOWING PAGE WHICH ARE AN INTEGRAL PART OF THE CERTIFICATION)

The prospective recipient of federal assistance funds certifies, by submission of this bid, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Where the prospective recipient of federal assistance funds is unable to certify to any of the Statements in this certification, such prospective participant shall attach an explanation to this Proposal.

Name of Representative:		
Title of Representative:		
Signature:		
Date:		
1. Is this company enrolled in the Federal System for Awards Management (SAM	1)? YES	NO
2. If Yes, please provide either the DUNS Number or	the Cag	ge Code

3. If No, the company must be enrolled in SAM before a contract can be signed or payment made on a contract involving federal funds. Failure to do so will result in cancellation of the contract.

INSTRUCTIONS FOR CERTIFICATION

- **1.** By signing and submitting this Proposal, the prospective recipient of federal assistance funds is providing the certification as set out below.
- 2. The certification in this class is a material representation of the fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department of Labor (DOL) may pursue available remedies, including suspension and/or debarment.
- **3.** The prospective recipient of federal assistance funds shall provide immediate written notice to the person to whom this Proposal is submitted if at any time the prospective recipient of federal assistance funds learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- **4.** The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "Proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this Proposal is submitted for assistance in obtaining a copy of those regulations.
- **5.** The prospective recipient of federal assistance funds agrees by submitting this Proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the DOL.
- **6.** The prospective recipient of federal assistance funds further agrees by submitting this Proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- **7.** A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to check the List of Parties Excluded from Procurement or Non-procurement Programs.
- **8.** Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- **9.** Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the DOL may pursue available remedies, including suspension and/or debarment.

CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

The grantee certifies that it will provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing a drug-free awareness program to inform employees about—
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation and employee assistance programs, and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will—
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after each conviction;
- (e) Notifying the agency within ten days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction;
- (f) Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted—
 - (1) Taking appropriate personnel action against such an employee, up to and including termination; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

Date

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

Typed Name and Title of Certification Official

Signature

ALASKA MILITARY SKILLS PREFERENCE CERTIFICATION

In response to the advertised procurement for:	
Project Name and Number Replace HVAC Fuels Area H1	2, IFQ 09-004-26 ,
Bidder (Contractor)	
Operation of Alaska Military Skills Preference. Under Alaska Bidder. Operation of Alaska Military Skills Preference. This preference may not experience of Alaska Military Skills Preference.	ode are benefits that the State grants only to qualified to percent preference to the price in the bidder's proposal the corresponding certifications, it is not eligible for the
Instructions regarding Alaska A bidder that claims the Alaska Military Skills Preference Certification", the "Qualifying Entity Certification", and the a certification shall include their printed name and positi partner, etc. If a bidder fails to submit properly completed c preference.	must review and complete the "Alaska Military Skills "Alaska Bidder Certification". The individual that signs on within bidder's organization, <i>e.g.</i> , sole proprietor,
Alaska Military Ski (To be completed by individual(s) upon whom the bidder relic is a partnership, limited liability company, or corporation, the must sign this Alaska Military Skills Certification for the Bidd of graduation of the qualifying employee(s) from an eligible p	es in claiming the Alaska Military Skills status. If bidder en employee(s) who are claiming Alaska Military Skills der to be eligible for this preference and provide proof
I hereby represent to the Department that:	
from, a United States Department of Defense Skill. These programs provide service members or their sp pre-apprenticeships, registered apprenticeships, or intretirement from the military. Alternatively, I maintain an active partnership with a	bridge or United States Army Career Skills Program. Souses with civilian work experience, industry training, ternships during the final 180 days before separation or n entity that employs apprentices through a program as
outlined in AS 36.30.321. Additionally, I am a resident of Alaska, meaning I am indefinitely and establish a permanent home here.	physically present in the state with the intent to remain
I certify under penalty of perjury that the foregoing statement	es are true and correct as they apply to me.
By (signature)	Date
Printed name	Title

Qualifying Entity Military Skills Certification The bidding entity for which I am the duly authorized representative is a: (Check the appropriate box) employs at least one person who is currently enrolled in, or within the previous two years graduated from, a United States Department of Defense SkillBridge or United States Army Career Skills Program for service members or spouses of service members that offers civilian work experience through specific industry training, pre-apprenticeships, registered apprenticeships, or internships during the last 180 days before a service member separates or retires from the service; or □ has an active partnership with an entity that employs an apprentice through a program described in AS 36.30.321. proof of graduation of the qualifying employee(s) from an eligible program as described in AS 36.30.321. By applying my signature below, I certify under penalty of perjury that I am the duly appointed representative of this bidder, which has authorized and empowered me to legally bind it concerning the proposal and that the statement I have acknowledged above by checking the appropriate box is true and correct. By (signature) Date Printed name Title **Alaska Bidder Certification** (To complete your claim for the Alaska Military Skills Preference, you must also submit an Alaska Bidder Certification, which the bidder can view, download, and print from the DOT&PF's Bid Express Proposal page.)

OFFEROR'S CHECKLIST

This checklist is being provided as a courtesy to offerors when preparing and submitting their quote. It may not be an all-inclusive list. It is the offeror's responsibility to ensure all required documents and information is submitted as specified within this IFQ no later than the Deadline for Receipt of Quotes.

A. The following items are <u>required</u> to be completed and returned by the offeror with their quote:	
1.	A completed Form SPC-002 of this IFQ, and
2.	A completed Form SPC-008 of this IFQ, and
3.	A Completed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions, and
4.	A Completed Certification Regarding Drug-Free Workplace Requirements, and
5.	A completed Bid Bond, Form 25D-14.
B. The following items are required <u>only if the offeror is claiming an Alaska Bidder, Veteran, or other preference</u> :	
	A Completed certification of entitlement to the Alaska Bidder, Veteran, Product, or tary Skills Preference.
	A Copy of the Certification Letter from the Department of Labor and Workforce elopment, Division of Vocational Rehabilitation, if claiming the Employment Program or
	o complete and submit the above items with your quote may result in your quote being ed nonresponsive and being rejected by the State.

-END OF IFQ-