CONTRACT AWARD CA2231-20

SECTIONS:

SECTION I –TERMS AND CONDITIONS

SECTION II – SPECIFICATIONS

SECTION III – PRICE SCHEDULE

CONTRACTOR:

Craig Taylor Equipment

733 E. Whitney Road

Anchorage, AK 99501

Contact: Garret Nelson

(907) 290-8679

g.nelson@cteak.com

Alaska Business License No: 13358

Date of Contract: June 24, 2020

Contract Expiration: June 24, 2021

Estimated Value of Initial Term: $1,500,000

Optional Renewals:

Renewal One Expiration: June 24, 2022

Renewal Two Expiration: June 24, 2023

Renewal Three Expiration: June 24, 2024

Renewal Four Expiration: June 24, 2025

CONTRACTING AUTHORITY:

State of Alaska

HQ, State Equipment Fleet

5420 Dr. MLK Jr. Avenue

Anchorage, AK 99507

CONTRACTING OFFICER:

Kristi Futrel

(907) 269-0793

Kristi.Futrel@alaska.Gov

Contracting Authority Name & Title:

Kristi Futrel, Contracting Officer IV

Contractor Authority Name & Title:

Chris Devine, CEO, Craig Taylor Equipment

## CONRACT INTENT: Purchase Multi-Purpose Snow Removal Equipment, Dedicated Snow Blowers:

* 1. Contract Period**:** One Year, 4 One Year Renewal Options. This will be a multi-vendor contract.
	2. Quantities: Year 1 – 1 Multi-Purpose Unit, 2 Dedicated Snow Blowers. Funding is immediately available.
	3. Additional units have been identified but quantity is solely dependent on funding from the FAA.
	4. Quantities for renewals will be solely dependent on funding from the FAA.
	5. Location of Use: Statewide, Alaska
	6. Warranty locations: Anchorage
	7. In addition to the State of Alaska requirements, the Municipality of Anchorage and other Alaska political subdivisions may cooperatively purchase from the resulting contract.
		1. At no time may the contractor change the terms and conditions, alter the price to another entity, which differs from the contractual price, nor charge undisclosed administrative fees to allow cooperative purchasing.

## DELIVERY:

* 1. Pre-delivery service: Prior to delivery, each vehicle, piece of equipment or attachment shall be serviced and inspected by the dealer or his agent. Inspection must include the following (as applicable to the type of equipment):
		1. Dealer and vehicle identification.
		2. Check-off of service and inspection performed including a list of all fluids including type weight and specification that are in the equipment as delivered for all fluid compartments.
		3. The vehicle's crankcase, differential and transmission, and other fluid compartments shall be filled to the manufacturer's recommended capacity.
		4. Fuel tank shall be filled to at least register a minimum ¼ full on the fuel gauge, unless restricted by the commercial carrier, when the vehicle arrives at the delivery location.
		5. The vehicle shall be clean and free from defects when delivered and should be ready for immediate and continued use upon delivery.
		6. Units delivered in an incomplete state, or which have deficiencies per the specification, are subject to the damage charges as noted in paragraph 4.0 below.
	2. Inspections:
		1. The State's inspection of all materials and equipment upon delivery is for the sole purpose of identification. Such inspection shall not be construed as final or as acceptance of the materials or equipment if materials or equipment do not conform to Contract requirements. If there are any apparent defects in the materials or equipment at the time of delivery, the State will promptly notify the Contractor thereof. Without limiting any other rights of the State, The State at its option, may require the Contractor to:
			1. repair or replace at contractor's expense, any or all of the damaged goods,
			2. refund the price of any or all of the damaged goods, or
			3. Accept the return of any or all of the damaged goods.
		2. Costs of remedying all defects, indirect and consequential costs of correcting same, and/or removing or replacing any or all of the defective materials or equipment will be charged against the bidder.
	3. Acceptance:
		1. Units will not be considered “Accepted” until all deficiencies have been corrected. This includes item 2.5 Line Sheets/Bill of Materials, 2.6 Parts & Service Information, and 8.0 Publications.
	4. Delivery Receipt:
		1. A delivery receipt will be required. The receipt must be filled out by the vendor, and acknowledged by state receiving personnel by signature and date of actual receipt of equipment. One copy of this delivery receipt is to be given to the state-receiving agency.
		2. Vendors are cautioned and advised that such delivery forms or other receiving type documents will not in any way be construed to mean the state has formally and fully accepted unit(s) referenced thereon as complete and meeting every specification set forth. Only the Contracting Officer or designee may sign warranty documentation.
	5. Build Sheets/Bill of Materials:
		1. It is required at the time of delivery that the successful bidder provides a comprehensive listing of all components used to assemble the unit.
		2. This includes any components installed by the manufacturer or any subcontractor or the successful bidder.
		3. Information will include at a minimum, make, model serial number on items such as engines, transmissions, axles, tires, bodies, etc. The listings will be specific to each piece of equipment.
		4. PDF copies of Build Sheets/Bill of Materials must be emailed to: jonathan.skinner@alaska.gov, for archiving and sharing with the proper SOA departments.
	6. Parts & Service information
		1. It is required at the time of delivery that the successful bidder provides a comprehensive listing of parts & service information.
		2. Information will include, at a minimum, list of all required filters, list of all required oil types by compartment, quantity of oil needed, service schedule listing required service items by hours/miles and date, and a recommended parts stock list.
		3. PDF copies of Parts & Service information must be emailed to: jonathan.skinner@alaska.gov, for archiving and sharing with the proper SOA departments.

## F.O.B. POINT:

* 1. The F.O.B. point is as listed in Section III, Bid Schedule. Ownership of and title will remain with the contractor until delivery is complete to final destination and accepted by the State. Equipment is not to be driven on the Alcan Highway without prior written approval from the contracting officer.
	2. The cost of shipping and delivery for orders beyond the limits of Seattle/Tacoma dock will be handled as follows. The contractor will prepay the shipping and delivery charges to any destination named by the State in its order. The contractor will charge-back those shipping and delivery charges to the State as a separate line item on the State’s invoice.
	3. All shipping charges over $100 must be documented by a copy of the actual shipping invoice and received with the invoice charge to the State.
	4. Shipping must be consolidated for the best possible price. Shipping items separately must be pre-approved by the Contracting Officer PRIOR to shipment. For example, GP Bucket or Spare Tire not being shipped with host unit must be pre-approved.

## DAMAGES FOR LATE DELIVERY AND NON-CONFORMING GOODS:

* 1. Time is of the essence in this contract. The Bidder is expected to deliver goods that conform in all material respects to the contract specifications on or before the date provided therein, as may be amended by written agreement of the parties.
	2. In the event that the equipment is delivered late or does not conform to the contract specifications, the State shall be entitled to offset against the Contract Price, as liquidated damages and not as a penalty, an amount equal to the cost of renting like equipment, multiplied by the number of calendar days elapsing between the delivery date provided in the bid schedule and the delivery date to the State. In the case of equipment in this this class, that daily rental fee is determined to be $900.00. The number of days for which liquidated damages shall apply shall include, in the case of non-conforming goods, the time reasonably necessary for the State to perform inspection.
	3. These liquidated damages represent a reasonable estimate of amounts necessary to compensate the State for loss of use of the goods during the period in which the goods would have been available to the State if conforming goods had been timely delivered.

## EQUIPMENT RELIABILITY:

* 1. Reliability of equipment is of paramount importance to the State. It is the policy of SEF to require minimum levels of reliability from owned or leased equipment for it to be considered acceptable. Equipment offered for this bid must be capable of meeting the acceptable reliability standard stated below.
	2. Acceptable Reliability: The State will monitor equipment reliability. Acceptable reliability for this contract is achieved when a machine achieves or maintains a Reliability Ratio (RR) equal to or exceeding the following:
		1. .90 (90 percent) PR during any consecutive 12-months (365 days) during the warranty period.
		2. .75 (75 percent) PR per operational month (recognizing operational as subject to weather and being defined by calendar days) during the consecutive 12-month period.
		3. PR below the state percentages do not meet minimum reliability requirements for state owned equipment.
	3. Machine Failure and Downtime:
		1. Machine Failure is any and all loss of capability to perform fully, as specified, which is not attributed to Conditioned Failure. Machine Failure resulting in the unit being out of service is defined as Downtime.
		2. Conditioned Failure is any Machine Failure attributable to accident, operator abuse or other external cause not attributable to a defect in the machine itself.
		3. Downtime is the actual number of days or fractions of days that the equipment is in a state of Machine Failure. Downtime does not count time used for scheduled maintenance (including preventative maintenance and scheduled major overhauls), time lost for repair maintenance and scheduled major overhauls, time lost for repair of damage as a result of operator abuse or machine misapplication; or time lost as a result of accident or an act of God. Downtime includes:
			1. Actual shop hours (and/or field repair hours) required to return unit to full operational status following machine failure, including trouble-shooting, repair, necessary replacement of parts, and necessary adjustments, plus
			2. Time lost waiting for parts and/or vendor assistance. “Waiting downtime” also applies if need for parts/assistance is discovered during routine maintenance and return to service is deemed counterproductive. In this case, “waiting time” clock begins with notice of need to vendor. Allowance may be considered in “waiting time” calculations if arrival of parts/assistance is delayed by transportation shutdown, to include verifiable transportation scheduling difficulties such as infrequent flights as long as all reasonable alternatives have been exhausted. Parts and assistance are to be provided by the quickest means reasonably possible to avoid unnecessary delays and downtime.
		4. Out of Service Report (OSR): Downtime resulting from machine failure is the actual number of hours a machine is out of service as recorded on the OSR or in the Equipment Maintenance Management System (EMS).
			1. The State will record all downtime on an OSR or EMS work order, which will be originated for each occurrence of downtime. The document will show the date and time a unit went down, the location where the machine was based, the reason the machine is down, date and time the vendor was notified (if applicable), the date and time the machine was returned to service, and the total hours of downtime.
				1. The Contract Manager will finalize and approve the OSR or EMS work order. Both are available for contractor review.
		5. Reporting Downtime: The Contracting Officer will maintain documentation of all Downtime, and shall send copies of such documentation to the contractor.
		6. Calculation of Reliability Ratio: RR is the mathematical ration of operated time (uptime) to out of service time (downtime). The RR will be calculated according to the following formula:

RR = Days in a Month – Days Out of Service\* = DM - DO

 Days in a Month \*\* DM

 Note \* : Fractional Days apply, i.e., a unit is out of service 8 hours in a 24 hour period equals 1/3 or .33% of a day.

 Note \*\*: A day is allocated as 24 consecutive hours from 12:00 AM to 12:00 PM.

 Example: 30 days DM with 2 days and 8 hours DT would result in:

 RR = 30 - 2.33 = .92

 30

* + 1. Unacceptable Reliability: If an item of equipment fails to perform at an acceptable level of reliability during the warranty period, the Contracting Officer will notify the contractor and request immediate remedy. Failure to remedy the piece of equipment within 30 days for failure will result in a breach of contract and the immediate return of the equipment and reimbursement of the Guaranteed Value (V) of the unit:

Original Cost of the unit less (-) Freight = $\_\_\_\_\_\_\_\_\_\_ (V)

Guaranteed Value (V) less (-) the Cost of Operation as listed in the Equipment Rental Rate Blue Book or comparable equipment or the current Federal Fixed Usage Rate for the Class for the State of Alaska (a, b or c per hour) times (X) the number of hours used = \_\_\_\_\_\_\_\_\_\_\_(DV).

1. Example: Cost of a single unit, less freight = $150,000. The hourly cost is $150.00 per hour. The unit was used 150 hours prior to failing the acceptable reliability. The contractor guarantees the unit’s worth at $127,500.00.
	* 1. Prior to return, the State will correct all reasonable cosmetic deficiencies (such as excessive rust) and those deficiencies that are directly related to damage due to accidents, misuse of equipment or failure to operate or maintain equipment as prescribed by the vendor/manufacturer, prior to public auction.
		2. The tires will be serviceable with at least 50% remaining thread.
		3. Oil samples, as per manufacturer’s service manual recommendations, will be taken by State of Alaska maintenance personnel on the engine, transmission, differentials and hydraulics.
		4. In the case of dispute, at the expense of the State, a qualified agent from Northern Adjusters, Inc. or another professionally recognized appraiser may be commissioned for an independent claim appraisal. Such appraisal shall be binding upon the State and the contractor.

## WARRANTY:

* 1. Standard Warranty Package: Unless otherwise stipulated by this ITB, the successful bidder will provide a one-year (12-month) warranty.
		1. Full (100%) Parts and Labor Warranty Coverage of all components for 12 months (year one), from the date the unit is placed in service at the assigned location.
		2. Full (100%) Warranty Coverage includes all cost of labor, parts, freight, lubricants, miscellaneous cost, etc., to place the unit in like-new condition.
		3. Should the manufacturer’s standard warranty exceed the minimum State warranty requirements, the manufacturer’s warranty will run in conjunction with and enhance the State’s warranty, then continue for the remainder of its term.
		4. For clarification, warranty does not apply to normal wear and tear or maintenance items, accident damages, misuse of equipment or failure to operate or maintain equipment as prescribed by vendor/manufacturer.
		5. Warranty on Attachments: Same as Standard Warranty Package.
		6. In-Service Date: Warranty on vehicles not placed in service immediately upon receipt because of time lag to construct body components and/or installation of special equipment, or due to seasonal usage or other delay, shall be warranted from the date the vehicle is placed in service. The receiving agency shall notify the vendor/manufacturer in writing of the actual "in service" date. Notification of the requirement for delayed warranty will be provided on delivery orders whenever possible.
	2. Warranty Claims:
		1. Warranty will be provided at the unit’s assigned (in-service) location. Because of the remote location of some equipment it is not always practical to deliver equipment to authorized warranty repair facilities. In these cases, the vendor may perform warranty work at the state's location or, the State of Alaska, at its discretion, reserves the right to perform the warranty work and be reimbursed by the vendor. If travel is required by State personnel to perform the work, actual costs will be used for reimbursement.
		2. The State of Alaska has established a warranty procedure whereby the vendor is to be notified via letter, email, or fax, that warranty work needs to be performed. If time is of the essence, a telephone call confirmed by one of the above written procedures may be utilized.
		3. The vendor must notify the state within 24 hours of verbal or written notification that it will begin to perform the warranty work at the equipment location.
		4. The State may, at its discretion, proceed to make warranty repairs with its own work force in the case of emergency situation or to preclude excessive downtime (greater than 24 hours). The State will require a PO to perform the warranty work.
		5. Failure to notify the State that the vendor intends to begin to perform warranty is considered a contractual breach.
		6. The vendor will be invoiced for required warranty work performed by the state.  Warranty work performed by the state will be charged at the current SEF shop labor rate at the time of the repair.  Actual repair time will be used.
	3. Warranty Performed by Vendor:
		1. The State will reimburse travel costs not reimbursed by the manufacturer for travel to and from the bidder’s closest warranty service center within the State of Alaska to the location of the equipment under warranty.  Travel costs will be billed as follows:
			1. Mileage Charge: Mileage will only be reimbursed for travel within Alaska at the rate allowable by the IRS.
			2. Meals are paid at actual and charges must be accompanied by receipts and are not to exceed the State authorized $60.00 per day.
			3. Transportation, such as airfare, shall be reimbursed at actual and all charges are to be accompanied by a receipt/copy of the coach ticket.
			4. Lodging shall be reimbursed at actual and shall not exceed $150.00 per night unless no other lodging is available. Requests for reimbursement must be accompanied by a receipt.
		2. Travel will only be reimbursed for time in Alaska.
		3. After hours, weekend and holiday travel must be approved by the contracting officer to be considered for reimbursement. The State will not pay for weather delays.
	4. Authorized Warranty (Contractor/Bidder):
		1. Contractor (bidder) must have Authorized Warranty Dealer that has all required licenses, facilities and factory certified and trained personnel necessary to perform the warranty servicing and repair work.

Provide name and address for each Authorized Warranty Dealer for each location.

(\*) Craig Taylor Equipment, 733 E Whitney Road, Anchorage, AK 99501

Provide contact name and contact information for Warranty Administrator:

(\*) Daniel Coe (907) 256-5050

* + 1. The ultimate responsibility for warranty lies with the contractor (bidder).
		2. The State reserves the right to inspect the warranty facility and diagnostic equipment prior to issuing the Notice of Intent to Award a contract.
	1. Factory Recall:
		1. Nationwide factory recall or product update programs are the responsibility of the vendor and/or manufacturer. The State will attempt to bring affected equipment to an authorized repair facility. However, because of the remoteness of some equipment this is not always practicable or economical. In such cases, factory recall and modification work will be handled the same as warranty work. Factory recall notices sent to the state should, in addition to serial number, include model, year, and dealer.

## REPAIR ORDERS AND DOCUMENTATION:

* 1. Any work performed by the contractor or approved subcontractor, whether warranty or any other work on a piece of equipment purchased under this ITB, will require a copy of the repair order, any invoices showing parts and commodities including oils and types used.

## PUBLICATIONS:

* 1. Paper publications are to be received by the State at the time of delivery. Delivery will not be considered complete until the publications for each unit have been received by the State of Alaska. Note: Publications, when required, will be ordered on the same Purchase Order as the unit itself.
		1. All paper manuals are to be pre-assembled in factory binders prior to delivery.
		2. Any electronic copies of manuals, and subsequent revisions, must be emailed to: jonathan.skinner@alaska.gov, for archiving and sharing with the proper SOA departments.
		3. Online access to manuals must be provided at time of delivery. All shared access credentials shall be proved to: jonathan.skinner@alaska.gov, for archiving and sharing with the proper SOA departments.
	2. Service Manuals:
		1. Complete set(s) to include applicable information covering prime unit and attachments:
		2. Body, chassis, and electrical
		3. Engine, transmission, and differential(s) (service and rebuild)
		4. Electrical and vacuum troubleshooting
		5. Wiring diagrams
		6. Service specifications
		7. Engine/emission diagnosis
	3. Parts Manuals:
		1. Complete set(s) including all updates. If updates are not provided during the warranty period, the State may order them from the manufacturer and bill the contractor for the full cost, including shipping.
		2. Parts manuals are to be customized by serial number.
	4. Operator’s Manuals: Complete set(s) to include prime unit and attachments.
	5. Quantities: As per Section III – Bid Price Schedule.
	6. Service Bulletins, Etc.: The successful bidder must provide appropriate service bulletins, technical support bulletins, service letters, product support bulletins, and/or any other information type notifications that are sent out to the vendor or used by the manufacturer in the maintenance and report of the vehicle, equipment or attachments being provided. The intent of this clause is that the State of Alaska be provided notification of any and all changes or improvement’s that may affect the maintenance, reliability, longevity, and safety of our equipment.

## STATEMENT OF ORIGIN: The bidder will be required to furnish a Manufacturer's Statement of Origin for Automotive or Non-Automotive rolling stock for each unit. All such documents shall be delivered with the invoice to:

DOT&PF, HQ State Equipment Fleet

5420 Dr. Martin Luther King Jr. Avenue

Anchorage, Alaska 99507

## WEIGHT VERIFICATION SLIPS: If required in the Bid Price Schedule, a weight scale ticket of the completed unit will be included with the Statement of Origin.

## PRICE:

* 1. Price Guarantee: The Contractor is responsible to maintain prices under the contract firm for 180 days after bid opening. All price increases or decreases must remain firm for the following 180 days.
	2. NO RETROACTIVE PRICE INCREASES WILL BE ACCEPTED.
	3. Price adjustments, increases or decreases, for subsequent orders, may be made by providing the Contracting Officer satisfactory evidence that all of the following conditions exist:
		1. The increase is a result of the increased cost at the manufacturer’s level and not costs under the contractor’s control, and that;
			1. The increase will not produce a higher profit margin for the contractor than that on the original contract, and that;
			2. The increase affects only the item(s) that are clearly identified by the contractor.
			3. Satisfactory forms of the evidence of the above facts may include a certified invoice from the manufacturer, or an affidavit from an independent professional price-tracking firm that is recognized by the industry as reputable and knowledgeable. The contractor must be able to show the difference between the prior year’s price and the current difference in the price being requested.
	4. Price Decreases: During the period of the contract, the Contractor must pass on to the state all price decreases, such as fleet rebates. A Contractor’s failure to adhere strictly and faithfully to this clause will be considered a material breach of contract. The state reserves the right to cancel the contract if the contractor fails to properly perform the duties set out herein.
	5. Manufacturer’s Rebate (Incentives):
		1. In any circumstance during or prior to completion of the contract, whereupon the State of Alaska becomes eligible to receive a rebate for any vehicle purchased under this contract, it shall be the BIDDER'S responsibility to inform the Contracting officer in writing and to advise the procedures for obtaining such rebates.

## REPLACEMENT PARTS AND REPAIRS:

* 1. This contract encompasses a full parts and labor contract for manufacturer parts and repairs for the entire warranty period.
	2. The State of Alaska shall expect the dealer or manufacturer to provide replacement wear parts at their authorized warranty facilities for the entire warranty period within seven (7) days of order. All other parts must be available within ten (10) working days.
	3. Back order procedures: Back orders are acceptable; however, the ordering shop shall be appraised at time of original orders as to the expected delay in delivery.
	4. Warranty: All products supplied by the contractor shall be warranted against defects in materials and workmanship for a minimum of 90 days, commencing at the time of installation as long as the installation is within 12 months of purchase. The cost of any defective product and the labor required to replace the defective product shall be the obligation of the contractor.
		1. If the manufacturer’s warranty exceeds the stated warranty then manufacturer’s warranty supersedes.
		2. Parts Return: Within 12 months of the invoice date, the State is to be allowed to return new parts with full refund, less actual shipping charges. Cores returned within 12 months of original invoice date will receive full core credit. Returned parts will be in new, resalable condition. Refund will be in the form of a credit/invoice credited to the SOA account with the vendor.
		3. Invoicing: Full description of item is required on all invoices, packing lists and billings.

# CONDITIONS:

## AUTHORITY:

This ITB is written in accordance with AS 36.30 and 2 AAC 12.

## COMPLIANCE:

In the performance of a contract that results from this ITB, the contractor must comply with all applicable federal, state, and borough regulations, codes, and laws; be liable for all required insurance, licenses, permits and bonds; and pay all applicable federal, state, and borough taxes.

## SUITABLE MATERIALS, ETC.:

Unless otherwise specified, all materials, supplies or equipment offered by a bidder shall be new, unused, and of the latest edition, version, model or crop and of recent manufacture.

## SPECIFICATIONS:

Unless otherwise specified in the ITB, product brand names or model numbers specified in this ITB are examples of the type and quality of product required, and are not statements of preference. If the specifications describing an item conflict with a brand name or model number describing the item, the specifications govern. Reference to brand name or number does not preclude an offer of a comparable or better product, if full specifications and descriptive literature are provided for the product. Failure to provide such specifications and descriptive literature may be cause for rejection of the offer.

## FIRM OFFER:

For the purpose of award, offers made in accordance with this ITB must be good and firm for a period of ninety (90) days from the date of bid opening.

## EXTENSION OF PRICES:

In case of error in the extension of prices in the bid, the unit prices will govern; in a lot bid, the lot prices will govern.

## BID PREPARATION COSTS:

The State is not liable for any costs incurred by the bidder in bid preparation.

## CONSOLIDATION OF AWARDS:

Due to high administrative costs associated with processing of purchase orders, a single low bid of $50 or less may, at the discretion of the State, be awarded to the next low bidder receiving other awards for consolidation purposes. This paragraph is not subject to the protest terms enumerated in “*INSTRUCTION TO BIDDERS”*, “FILING A PROTEST*”* above.

## CONTRACT FUNDING:

Bidders are advised that funds are available for the initial purchase and/or the first term of the contract. Payment and performance obligations for succeeding purchases and/or additional terms of the contract are subject to the availability and appropriation of funds.

## CONFLICT OF INTEREST:

An officer or employee of the State of Alaska may not seek to acquire, be a party to, or possess a financial interest in, this contract if (1) the officer or employee is an employee of the administrative unit that supervises the award of this contract; or (2) the officer or employee has the power to take or withhold official action so as to affect the award or execution of the contract.

## ASSIGNMENT(S):

Assignment of rights, duties, or payments under a contract resulting from this ITB is not permitted unless authorized in writing by the procurement officer of the contracting agency. Bids that are conditioned upon the State’s approval of an assignment will be rejected as nonresponsive.

## SUBCONTRACTOR(S):

Within five (5) working days of notice from the state, the apparent low bidder must submit a list of the subcontractors that will be used in the performance of the contract. The list must include the name of each subcontractor and the location of the place of business for each subcontractor and evidence of each subcontractor's valid Alaska business license.

## FORCE MAJEURE:

(Impossibility to perform): The parties to a contract resulting from this ITB are not liable for the consequences of any failure to perform, or default in performing, any of its obligations under the contract, if that failure or default is caused by any unforeseeable Force Majeure, beyond the control of, and without the fault or negligence of, the respective party. For the purposes of this ITB, Force Majeure will mean war (whether declared or not); revolution; invasion; insurrection; riot; civil commotion; sabotage; military or usurped power; lightning; explosion; fire; storm; drought; flood; earthquake; epidemic; quarantine; strikes; acts or restraints of governmental authorities affecting the project or directly or indirectly prohibiting or restricting the furnishing or use of materials or labor required; inability to secure materials, machinery, equipment or labor because of priority, allocation or other regulations of any governmental authorities.

## LATE BIDS:

Late bids are bids received after the time and date set for receipt of the bids. Late bids will not be accepted.

## CONTRACT EXTENSION:

Unless otherwise provided in this ITB, the State and the successful bidder/contractor agree: (1) that any holding over of the contract excluding any exercised renewal options, will be considered as a month-to-month extension, and all other terms and conditions shall remain in full force and effect and (2) to provide written notice to the other party of the intent to cancel such month-to-month extension at least thirty (30) days before the desired date of cancellation.

## DEFAULT:

In case of default by the contractor, for any reason whatsoever, the State of Alaska may procure the goods or services from another source and hold the contractor responsible for any resulting excess cost and may seek other remedies under law or equity.

## DISPUTES:

If a contractor has a claim arising in connection with a contract resulting from this ITB that it cannot resolve with the State by mutual agreement, it shall pursue a claim, if at all, in accordance with the provisions of AS 36.30.620 – 632.

## CONSUMER ELECTRICAL PRODUCT:

AS 45.45.910 requires that "...a person may not sell, offer to sell, or otherwise transfer in the course of the person's business a consumer electrical product that is manufactured after August 14, 1990, unless the product is clearly marked as being listed by an approved third party certification program." Electrical consumer products manufactured before August 14, 1990, must either be clearly marked as being third party certified or be marked with a warning label that complies with AS 45.45.910(e). Even exempted electrical products must be marked with the warning label. By signature on this bid the bidder certifies that the product offered is in compliance with the law. A list of approved third party certifiers, warning labels and additional information is available from: Department of Labor and Workforce Development, Labor Standards & Safety Division, Mechanical Inspection Section, P.O. Box 107020, Anchorage, Alaska 99510-7020, (907)269-4925.

## SEVERABILITY:

If any provision of the contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions will not be affected; and, the rights and obligations of the parties will be construed and enforced as if the contract did not contain the particular provision held to be invalid.

## GOVERNING LAW; FORUM SELECTION:

A contract resulting from this ITB is governed by the laws of the State of Alaska. To the extent not otherwise governed by section 17 of these Standard Terms and Conditions, any claim concerning the contract shall be brought only in the Superior Court of the State of Alaska and not elsewhere.

## NEW EQUIPMENT:

Equipment and components offered in response to this ITB 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 and components 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.

## ACCESSORIES:

When accessories are supplied, they must be certified to be compatible with the rest of the equipment. Certification will be written evidence satisfactory to the state that the accessories are compatible. The bidder's failure to supply this evidence within the time required by the state will cause the state to consider the bid non-responsive and reject the bid.

## BRAND SPECIFIC:

Certain items may be designated brand specific. When an item is so designated no substitutions for the brand and model specified will be allowed.

## INSPECTION:

Equipment offered for lease may be subject to inspection and approval by the state prior to the award of the ITB. The equipment and attachments must be in good repair and capable of performing the work for which they were designed.

## ALTERATIONS:

The contractor must obtain the written approval from the contracting officer prior to making any alterations to the specifications contained in this ITB. The state will not pay for alterations that are not approved in advance and in writing by the contracting officer.

## DISCONTINUED ITEMS:

In the event an item is discontinued by the manufacturer during the life of the contract, another item may be substituted, provided that the contracting officer makes a written determination that it is equal to or better than the discontinued item and provided that it is sold at the same price or less than the discontinued item.

## ITEM UPGRADES:

The state reserves the right to accept upgrades to models on the basic contract when the upgrades improve the way the equipment operates or improve the accuracy of the equipment. Such upgraded items must be at the same price as the items in the basic contract.

## DELIVERY TIME:

The elapsed time between the time the state places an order and the time that order is actually shipped from the contractor's place of business must be entered in space provided under "Bid Schedule". This processing time is to remain constant throughout the life of the contract(s).

## DELIVERY CONFIRMATION:

Bidders must obtain a confirmation from the manufacturer that the items offered are scheduled for production in sufficient time to meet the scheduled delivery dates. A copy of the manufacturer’s confirmation may be included with the bid or submitted within 10 days of the state's request. The bidder's failure to provide the manufacturers confirmation as required will cause the state to consider the bid non-responsive and reject the bid.

## ADVANCE NOTICE OF DELIVERY:

The contractor must notify the freight company that delivers the order that the state facility receiving the order requires 24 hours advance notice of delivery.

## THIRD-PARTY FINANCING AGREEMENTS NOT ALLOWED:

Because of the additional administrative and accounting time required of state agencies when third party financing agreements are permitted, they will not be allowed under this contract.

## CONTINUING OBLIGATION OF CONTRACTOR:

Regardless of the terms and conditions of any third-party financing agreement, the contractor agrees that none of its responsibilities under this contract are transferable and that the contractor alone will continue to be solely responsible until the expiration date of the contract. Such responsibilities include, but are not limited to, the provision of equipment, training, warranty service, maintenance, parts and the provision of consumable supplies. By signature on the face page of this ITB the bidder acknowledges this requirement and indicates unconditional acceptance of this continuing obligation clause.

## ESTIMATED QUANTITIES:

The quantities referenced in this ITB are the state's estimated requirements and may vary more or less from the quantities actually purchased. The state does not guarantee any minimum purchase. Orders will be issued throughout the contract period on an as-needed basis.

## SERVICE CHARGES:

Regardless whether the contractor repairs equipment on-site or off-site, the state will not be liable for any charges associated with the repair of broken equipment, including, but not limited to, unhooking, disassembly, packaging, crating, repair, transportation, replacement, reassembly, or rewiring.

## PARTS:

Only parts designed for the purpose they are being used, and warranted as new, may be used in the repair of state equipment.

## COMPLETION OF SERVICE:

The service will not be complete and the equipment will not be considered serviced, repaired, or acceptable until it performs in compliance with the manufacturer's published performance specifications.

## SERVICE TECHNICIAN QUALIFICATIONS:

Bidders must provide evidence that the person performing the service work is a manufacturer's authorized service technician; or, the bidder may provide evidence that they have contracted with a manufacturer's authorized service technician to perform the service work.

Acceptable evidence of the service technician's competence may take the form of a letter or certificate, signed by an authorized officer of the manufacturer, that the service technician has been trained and authorized by the manufacturer to provide manufacturer's authorized warranty service.

 The bidder’s failure to provide the evidence mentioned above, within the time required by the state, may cause the state to consider the bid non-responsive and reject the bid.

## WORKMANSHIP & MATERIALS:

 All work must be performed in a thorough and workmanlike manner and in accordance with current industry practices. The contractor will be held responsible for the quality of the finished item. The state will reject any item that does not meet the specifications of the ITB. Rejected items will be returned to the contractor at the contractor's risk and expense.

## CONTRACT CANCELLATION:

 The state reserves the right to cancel the contract at its convenience upon 30 calendar day’s written notice to the contractor. The state is liable only for payment in accordance with the payment provisions of this contract for services or supplies provided before the effective date of termination.

## METHOD OF AWARD:

 DOT/PF is required by law to award “to the lowest responsible and responsive bidder whose bid conforms in all MATERIAL respects to the requirements and criteria set out in the invitation to bid.” AS 36.30.170.

 All specifications in this ITB are important and bidders should carefully address each item. Deviation from a specification MAY result in rejection of a bid at the discretion of the Contracting Officer if the deviation is material. A material deviation is one that is significantly different from an essential aspect of a specification.

 The Contracting Officer may be justified in accepting a non-material deviation - it will be determined upon the facts, circumstances, and the proposal in the bid. If a bid deviation has a negligible effect on price, quality, performance, delivery or contract conditions, it is not material and may be waived or corrected by the Contracting Officer. The State reserves the right to waive minor informalities or technical defects, which are not material, when such waiver is in the best interest of the State.

 Nothing in this section shall be construed as depriving the State of its discretion in the matter of determining the lowest responsible bidder.

 A Notice of Intent to Award (ITA) will be issued for all solicitations in accordance with regulations. The notice of intent to award does not constitute a formal award of a contract. Formal award is achieved through execution of the "Offer and Contract Award" section of the Invitation to Bid.

## CONTRACTOR SELECTION PROCESS:

 If multiple contracts are awarded and established this selection process will be used. When an agency needs security services the lowest contractor for that location will be contacted first. If, for any reason, the lowest contractor is not available to perform the needed service, the state will contact the next lowest contractor for that location. This process will continue until a contractor who can perform the service is located. The location of the contractor initially contacted will be determined by the starting location of the call-out. For instance, if a there was a need to transport a person from Anchorage to Fairbanks and then guard the person for two days in Fairbanks, the agency would contact Anchorage contractors, even though a substantial portion of the actual service would be performed in Fairbanks.

# SPECIAL CONDITIONS:

## ORDER DOCUMENTS:

Except as specifically allowed under this ITB, an ordering agency will not sign any vendor contract. The State is not bound by a vendor contract signed by a person who is not specifically authorized to sign for the State under this ITB. The State of Alaska Purchase Order, Contract Award and Delivery Order are the only order documents that may be used to place orders against the contract(s) resulting from this ITB.

## BILLING INSTRUCTIONS:

Invoices must be billed to the ordering agency's address shown on the individual Purchase Order, Contract Award or Delivery Order, not to the Division of General Services. The ordering agency will make payment after it receives the merchandise or service and the invoice. Questions concerning payment must be addressed to the ordering agency.

## CONTINUING OBLIGATION OF CONTRACTOR:

Notwithstanding the expiration date of a contract resulting from this ITB, the contractor is obligated to fulfill its responsibilities until warranty, guarantee, maintenance and parts availability requirements have completely expired.

# AIP TERMS AND CONDITIONS:

## PERFORMANCE BOND FOR WARRANTY & PERFORMANCE:

A Performance Bond is due within 30 days of the first purchase order.

 The State does not have backup equipment in many of its locations. Consequently, new-unit reliability and warranty performance is of vital importance. To insure the possible reliability and warranty service the State requires the contractor to post performance bond in one of the forms listed below. The purpose of the posted performance bond is to secure performance over the entire term of the contract. The performance bond must cover any remaining warranty in the event that the contractor is unable to or otherwise fails to complete the warranty period. The amount of the performance bond will be $50,000.00. Release of the performance security will be contingent solely upon the acceptable completion of the terms of the original contract.

 The Performance Bond must be posted in one year terms for the life of the contract by a surety company agreed to by the parties to this contract. Failure to post the successive bond, or to provide an alternative security as listed below, will be cause for breach of contract and immediate cancellation of any future orders.

 The Performance Bond must be written in a form satisfactory to the State by a company authorized to do surety business in Alaska. The performance bond must provide a statement that it is payable to the State of Alaska as security for the contractor’s full and faithful performance of the contract.

 Alternate Security: In lieu of a performance bond, a contractor may post security in the form of a certified or cashier’s check, or a certificate of deposit, to be returned to the contractor provided that the contractor fully and faithfully performs the contract, including all warranty obligations.

A certified or cashier’s check, made payable to the State of Alaska.

A Certificate of Deposit (CD) made payable to the State of Alaska. Inclusion of other verbiage on the “payee” or pay to” line will render the security unacceptable.

## TRADE RESTRICTION CLAUSE (9 CFR Part 30.13FAA Order 5100.38):

The contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

 is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

 has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list;

 has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

 Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a contractor or subcontractor who is unable to certify to the above. If the contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the project, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract at no cost to the Government.

 Further, the contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The contractor may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

 The contractor shall provide immediate written notice to the sponsor if the contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

 This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct through the Sponsor cancellation of the contract or subcontract for default at no cost to the Government.

 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 provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

 This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

## CIVIL RIGHTS ACT OF 1964, TITLE VI – CONTRACTOR CONTRACTUAL REQUIREMENTS (49 CFR Part 21 AC 150/5100-15)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

 Compliance with Regulations. The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

Nondiscrimination. The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

Solicitations for Subcontracts, Including Procurements of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

Information and Reports. The contractor shall provide all information and reports required by the regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the sponsor or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

Sanctions for Noncompliance. In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

 Withholding of payments to the contractor under the contract until the contractor complies, and/or

 Cancellation, termination, or suspension of the contract, in whole or in part.

Incorporation of Provisions. The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

## AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION 520 - GENERAL CIVIL RIGHTS PROVISIONS (Airport and Airway Improvement Act of 1982, Section 520, Title 49 47123,AC 150/5100-15, Para. 10.c):

The contractor assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport a program, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon. In these cases the provision obligates the party or any transferee for the longer of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property. In the case of contractors, this provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

## DISADVANTAGED BUSINESS ENTERPRISES (49 CFR Part 26):

Contract Assurance (§26.13): The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

 Prompt Payment (§26.29): The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than *30* days from the receipt of each payment the prime contractor receives from the *State of Alaska.* The prime contractor agrees further to return retainage payments to each subcontractor within [specify the same number as above] days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the *Contracting Officer*. This clause applies to both DBE and non-DBE subcontractors.

## LOBBYING AND INFLUENCING FEDERAL EMPLOYEES (49 CFR Part 20, Appendix A):

No Federal appropriated funds shall be paid, by or on behalf of the contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant and the amendment or modification of any Federal grant.

If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal grant, the contractor shall complete and submit Standard Form-LLL, “Disclosure of Lobby Activities,” in accordance with its instructions.

## ACCESS TO RECORDS AND REPORTS (49 CFR Part 18.36(i), FAA Order 5100.38):

The Contractor shall maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representative’s access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

## ENERGY CONSERVATION REQUIREMENTS (49 CFR Part 18.36 & Public Law 94-163):

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

## BREACH OF CONTRACT TERMS (49 CFR Part 18.36):

Any violation or breach of terms of this contract on the part of the contractor or their subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement. The duties and obligations imposed by the Contract Documents and the rights and remedies available there under shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

## RIGHTS TO INVENTIONS (49 CFR Part 18.36(i)(8) & FAA Order 5100.38):

All rights to inventions and materials generated under this contract are subject to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

## TERMINATION OF CONTRACT (49 CFR Part 18.36(i)(2) & FAA Order 5100.38):

The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the Sponsor.

If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.

If the termination is due to failure to fulfill the contractor's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor shall be liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.

If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination shall be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.

The rights and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

## CERTIFICATION REGARDING DEBAREMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION (49 CFR Part 29 & FAA Order 5100.38):

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

## CLEAN AIR AND WATER POLLUTION CONTROL (49 CFR Part 18.36(i)(12) & Section 306 of the Clean Air Act & Section 508 of the Clean Water Act):

Contractors and subcontractors agree:

That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all other regulations and guidelines issued there under;

That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;

To include or cause to be included in any construction contract or subcontract which exceeds $100,000 the aforementioned criteria and requirements.

## BUY AMERICAN PREFERENCES (Section 9129 of the Aviation Safety and Capacity Expansion Act of 1990 & Title 49 U.S.C. Chapter 501, AIP Program Guidance Letter 91-3):

The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program. The following terms apply:

Steel and manufactured products. As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs b. (1) or (2) shall be treated as domestic.

Components. As used in this clause, components mean those articles, materials, and supplies incorporated directly into steel and manufactured products.

Cost of Components. This means the costs for production of the components, exclusive of final assembly labor costs.

# MANDATORY CONTRACT TERMS:

## ALASKA BUSINESS LICENSE AND OTHER REQUIRED LICENSES:

Prior to the award of a contract, a bidder must hold a valid Alaska business license. However, in order to receive the Alaska Bidder Preference and other related preferences, such as the Alaska Veteran and Alaskans with Disabilities Preference, a bidder must hold a valid Alaska business license at the time designated for bid opening. Bidders should contact the Department of Commerce, Community and Economic Development, Division of Corporations, Business, and Professional Licensing, P. O. Box 110806, Juneau, Alaska 99811-0806, for information on these licenses.

 Acceptable evidence that the bidder possesses a valid Alaska business license may consist of any one of the following:

* copy of an Alaska business license;
* certification on the bid that the bidder has a valid Alaska business license and has included the license number in the bid (see front page);
* a canceled check for the Alaska business license fee;
* a copy of the Alaska business license application with a receipt stamp from the state's occupational licensing office; or
* A sworn and notarized affidavit that the bidder has applied and paid for the Alaska business license.

You are not required to hold a valid Alaska business license at the time bids are opened if you possess one of the following licenses and are offering services or supplies under that specific line of business:

* fisheries business licenses issued by Alaska Department of Revenue or Alaska Department of Fish and Game,
* liquor licenses issued by Alaska Department of Revenue for alcohol sales only,
* insurance licenses issued by Alaska Department of Commerce, Community and Economic Development, Division of Insurance, or
* Mining licenses issued by Alaska Department of Revenue.

At the time designated for bid opening, all bidders must hold any other necessary applicable professional licenses required by Alaska Statute.

## BIDDERS WITH DISABILITIES:

The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Individuals with disabilities who may need auxiliary aids, services, and/or special modifications to participate in this procurement should contact the Division of Transportation at one of the following numbers no later than 10 days prior to bid opening to make any necessary arrangements.

Telephone: 907.269.0793

Fax: 907.269.0801

TDD: 907.269.0713

## COMPLIANCE WITH ADA:

By signature of their bid the bidder certifies that they comply with the Americans with Disabilities Act of 1990 and the regulations issued thereunder by the federal government.

Services or activities furnished to the general public on behalf of the state must be fully accessible. This is intended to ensure that agencies are in accordance with 28 CFR Part 35 Section 35.130 and that services, programs or activities furnished to the public through a contract do not subject qualified individuals with a disability to discrimination based on the disability.

## PREFERENCE QUALIFICATION:

In order to qualify for an Alaska Veterans Preference, Employment Program Preference, or Alaskans with Disabilities Preference, a bidder must add value by actually performing, controlling, managing, and supervising the services provided, or a bidder must have sold supplies of the general nature solicited to other state agencies, governments, or the general public.

## CONTRACT PERFORMANCE LOCATION:

By signature on their bid, the bidder certifies that all services provided under this contract by the contractor and all subcontractors shall be performed in the United States.

If the bidder cannot certify that all work will be performed in the United States, the bidder must contact the procurement officer in writing to request a waiver at least 10 days prior to the deadline for receipt of bids.

The request must include a detailed description of the portion of work that will be performed outside the United States, where, by whom, and the reason the waiver is necessary.

Failure to comply with these requirements may cause the state to reject the bid as non-responsive, or cancel the contract.

## HUMAN TRAFFICKING:

By signature on their bid, the bidder certifies that the bidder is not established and headquartered or incorporated and headquartered in a country recognized as Tier 3 in the most recent United States Department of State’s Trafficking in Persons Report.

The most recent United States Department of State’s Trafficking in Persons Report can be found at the following website: <http://www.state.gov/g/tip/>

Failure to comply with this requirement will cause the state to reject the bid as non-responsive, or cancel the contract

## NOTICE OF INTENT TO AWARD:

After the responses to this ITB have been opened and evaluated, a tabulation of the bids will be prepared. This tabulation, called a Notice of Intent to Award, serves two purposes. It lists the name of each company or person that offered a bid and the price they bid. It also provides notice of the state's intent to award a contract(s) to the bidder(s) indicated. A copy of the Notice of Intent will be mailed to each company or person who responded to the ITB. Bidders identified as the apparent low responsive bidders are instructed not to proceed until a Purchase Order, Contract Award, Lease, or some other form of written notice is given by the contracting officer. A company or person who proceeds prior to receiving a Purchase Order, Contract Award, Lease, or some other form of written notice from the contracting officer does so without a contract and at their own risk.

## PAYMENT FOR STATE PURCHASES:

Payment for agreements under $500,000 for the undisputed purchase of goods or services provided to a state agency, will be made within 30 days of the receipt of a proper billing or the delivery of the goods or services to the location(s) specified in the agreement, whichever is later. A late payment is subject to 1.5% interest per month on the unpaid balance. Interest will not be paid if there is a dispute or if there is an agreement that establishes a lower interest rate or precludes the charging of interest.

## CONTRACT ADMINISTRATION:

The administration of this contract is the responsibility of State Equipment Fleet, Contracting Officer, Department of Transportation.

## SHIPPING DAMAGE:

The state will not accept or pay for damaged goods. The contractor must file all claims against the carrier(s) for damages incurred to items in transit from the point of origin to the ultimate destination. The state will provide the contractor with written notice when damaged goods are received. The state will deduct the cost of the damaged goods from the invoice prior to payment. The contractor must file all claims against the carrier(s) for reimbursement of the loss.

## 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.

## 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, non-renewal, 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.

Proof of insurance is required for the following:

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.

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 occurrence.

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 occurrence.

Failure to supply satisfactory proof of insurance within the time required will cause the state to declare the bidder non-responsible and to reject the bid.

## BRAND AND MODEL OFFERED:

Unless otherwise specified, when brand names and model numbers are used to specify the type and quality of the goods desired, bidders must clearly indicate the brand names and model numbers they intend to provide. The bidder's failure to identify the brand and model offered will cause the state to consider the offer non-responsive and reject the bid.

## ANNOTATED LITERATURE:

Bidders must annotate their product literature to identify for the state the location of the supporting information regarding each product specification set out in this ITB. A bidder's failure to comply with this clause, within the time set by the state, will cause the state to consider the offer non-responsive and reject the bid.

## SUPPORTING INFORMATION:

The state strongly desires that bidders submit all required technical, specification, and other supporting information with their bid, so that a detailed analysis and determination can be made by the contracting officer that the product offered meets the ITB specifications and that other requirements of the ITB have been met. However, provided a bid meets the requirements for a definite, firm, unqualified, and unconditional offer, the state reserves the right to request supplemental information from the bidder, after the bids have been opened, to ensure that the products offered completely meet the ITB requirements. The requirement for such supplemental information will be at the reasonable discretion of the state and may include the requirement that a bidder will provide a sample product(s) so that the state can make a first-hand examination and determination.

A bidder's failure to provide this supplemental information or the product sample(s), within the time set by the state, will cause the state to consider the offer non-responsive and reject the bid.

## FIRM, UNQUALIFIED AND UNCONDITIONAL OFFER:

Bidders must provide enough information with their bid to constitute a definite, firm, unqualified and unconditional offer. To be responsive a bid must constitute a definite, firm, unqualified and unconditional offer to meet all of the material terms of the ITB. Material terms are those that could affect the price, quantity, quality, or delivery. Also included as material terms are those which are clearly identified in the ITB and which, for reasons of policy, must be complied with at risk of bid rejection for non-responsiveness.

## NONDISCLOSURE AND CONFIDENTIALITY:

Contractor agrees that all confidential information shall be used only for purposes of providing the deliverables and performing the services specified herein and shall not disseminate or allow dissemination of confidential information except as provided for in this section. The contractor shall hold as confidential and will use reasonable care (including both facility physical security and electronic security) to prevent unauthorized access by, storage, disclosure, publication, dissemination to and/or use by third parties of, the confidential information. “Reasonable care” means compliance by the contractor with all applicable federal and state law, including the Social Security Act and HIPAA. The contractor must promptly notify the state in writing if it becomes aware of any storage, disclosure, loss, unauthorized access to or use of the confidential information.

Confidential information, as used herein, means any data, files, software, information or materials (whether prepared by the state or its agents or advisors) in oral, electronic, tangible or intangible form and however stored, compiled or memorialized that is classified confidential as defined by State of Alaska classification and categorization guidelines (i) provided by the state to the contractor or a contractor agent or otherwise made available to the contractor or a contractor agent in connection with this contract, or (ii) acquired, obtained or learned by the contractor or a contractor agent in the performance of this contract. Examples of confidential information include, but are not limited to: technology infrastructure, architecture, financial data, trade secrets, equipment specifications, user lists, passwords, research data, and technology data (infrastructure, architecture, operating systems, security tools, IP addresses, etc.).

If confidential information is requested to be disclosed by the contractor pursuant to a request received by a third party and such disclosure of the confidential information is required under applicable state or federal law, regulation, governmental or regulatory authority, the contractor may disclose the confidential information after providing the state with written notice of the requested disclosure ( to the extent such notice to the state is permitted by applicable law) and giving the state opportunity to review the request. If the contractor receives no objection from the state, it may release the confidential information within 30 days. Notice of the requested disclosure of confidential information by the contractor must be provided to the state within a reasonable time after the contractor’s receipt of notice of the requested disclosure and, upon request of the state, shall seek to obtain legal protection from the release of the confidential information.

The following information shall not be considered confidential information: information previously known to be public information when received from the other party; information freely available to the general public; information which now is or hereafter becomes publicly known by other than a breach of confidentiality hereof; or information which is disclosed by a party pursuant to subpoena or other legal process and which as a result becomes lawfully obtainable by the general public.

# SPECIFICATION

## GENERAL SPECIFICATION:

It is the purpose of this specification to describe a new, and of the manufacturer’s latest current year production model and design, Multi-Purpose 4x4 carrier for airport use. Carrier is to include a dedicated Chassis drive system. An additional engine will be used to power 18, 20, or 22-foot runway broom, 5,000 TPH snow blower head attachment, and airport air blower system.

This specification also provides information for the purchasing of a dedicated carrier mounted 5,000 TPH snow blower; with our without an airport air blower system.

The broom is to be capable of completely removing up to 2½ (2.5) inches of light snow (8 to 15 pounds per cubic foot) at speeds of 10 to 30 MPH with a 3-inch strike pattern. The unit is to be capable of sweeping slush (density of 40 pounds per cubic foot) at speeds of 10 to 30 MPH. The unit shall also be capable of sweeping thin deposits of dry sand, dust, water, or other light debris.

The carrier’s cab shall be positioned behind the broom. Cab forward of attachments is not acceptable.

Unit is to include all factory standard equipment, unless specified otherwise.

 Unit is to comply with requirements of FAA Advisory Circular #150/5220-20 including any and all changes. This specification will supersede the circular.

APPLICATION:

 This equipment will be utilized for winter snow removal operations at Alaska rural airports throughout Alaska on runways, ramps, and taxiways, with travel speeds up to 40 MPH. Unit will be subject to varying terrain and weather conditions to - 50 ℉.

DOCUMENTATION REQUIRED:

 A basic manufacturer's product brochure(s) describing the unit(s) being bid is (are) to be provided.

 In addition, specifications marked with an asterisk (\*) require supporting documentation, which indicates specifically what the bidder intends to supply in regard to said items and/or how specifications will be met. In order to help prevent technical errors, following each asterisked is space that may be used to address all of the asterisked items. It is required that a letter of clarification or the space behind the asterisked items be used to supply the required information. You may use the area behind the asterisked item to refer to a product brochure, manufacturer’s technical data sheet, or letter of clarification, which indicates specifically what you, the bidder, intend to supply in regard to said items and/or how specifications are met. Product brochures used for asterisked items shall be tabbed (e.g. 1.1.1) and pertinent information highlighted.

TYPICAL MANUFACTURER:

 OSHKOSH TRUCK CORPORATION, MB-CO., LARUE or WAUSAU EVEREST. Provided all of the following minimum specifications are met.

## ENGINES:

* 1. Engine – Carrier:
		1. (\*) Diesel, water-cooled, four (4) cycle, 8.9 liter minimum displacement, electronically controlled, 380 SAE gross horsepower minimum, 1,450 pound foot Torque minimum.

**CAT C13 T4F 520HP, 1,755 LB-FT TORQUE.**

* + 1. Engine to be mounted to rear of chassis for unit balance and to allow for minimum noise injection into cab.
	1. Engine- Blower and/or Broom:
		1. (\*) Diesel, water-cooled, four (4) cycle, electronically controlled, 670 SAE net horsepower, 2,359 ft-lbs torque, minimum. Engine to be capable of performance requirements cited later in this specification.

##  **CAT C18 T4F 755HP, 2,581 LB-FT TORQUE.**

* 1. To be equipped with electronic high idle circuit, to maintain approximately 1,200 RPM (for warm-up purposes). Cable control is not acceptable.
	2. Engines shall be certified for EPA emission requirements.
	3. Engine Air Intake System:
		1. Must have two (2) stage (dual element) air cleaner.
		2. Air filter restriction indicator, dash-mounted.
		3. If required by engine manufacturer cooling requirements, air intake shall include a switchable inside or outside system that will allow inside air intake when outside ambient temperature is 40 ℉ or below, or outside air intake when outside ambient temperature is above 40 ℉. The process of changing from inside to outside or vice versa shall not require any tools other than a standard Crescent type wrench. Time involved should not take more than five (5) minutes, even in the most extreme weather conditions.
		4. Outside air shall include a cyclonictypepre-cleanersystem.
	4. Engine Exhaust System:
		1. Exhaust system to be designed to prevent rain, snow, or slush from entering exhaust system and directed away from operators compartment and any fresh air intakes.
		2. Exhaust piping to be located away from cab providing maximum visibility and be heat shielded if vulnerable to maintenance personnel.
		3. Horizontal exhaust piping shall be shielded to prevent spilled flammable fluids from contacting surface, where applicable.
	5. Engine Cooling System:
		1. Coolant to be permanent type antifreeze, affording protection to -60 ℉. To be DELO Extended Life coolant (red), or compatible.
		2. Radiator:
			1. The radiator shall include steel tank with the core being constructed of copper and brass or aluminum tank with the core being constructed of aluminum. Plastic Tank radiators are not acceptable.
			2. The radiator shall be capable of maintaining the correct operating temperature under all conditions encountered without dependence on other systems to provide cooling. If cooling system incorporates the use of shutters or other method of diverting air to the radiator or engine air intake, these systems shall operate consistent with the engine manufacturer’s recommendations.
			3. To be mounted securely on vibration dampening mounts.
		3. Drain cocks will be provided at the low points of the cooling system providing maximum drainage.
		4. To include coolant sight glass, visible by ground personnel.
		5. Clamps utilized on all coolant hoses, one (1) inch inside diameter or larger, are to be “Constant Torque” design, stainless steel.
		6. Safe and easy access to radiator fill shall be provided (hand rails with built-on ladder if necessary).
		7. Airflow through engine compartment will be such that compartment maintains a positive pressure to prevent compartment from becoming filled with dry snow or other contaminants.
	6. Engine Fuel System:
		1. Capacity: Sufficient to supply fuel to the engine(s) when the engine(s) is/are operating at rated intermittent HP at governed speed for nine (9) hours minimum shall be provided.
		2. When more than one (1) tank is furnished, means shall be provided to assure equalized fuel level in all tanks. A line, if used, shall be one (1) inch diameter, minimum. This line, if used and if below a drive shaft, shall be protected with channel iron. Line shall also have quarter turn shut off valves at tank ends to isolate tanks and line for maintenance or spill response.
		3. Filter(s):
			1. To be spin-on or cartridge type.
			2. To include ¼ turn valve(s), if required to prevent flow of fuel when changing fuel filter(s).
			3. To be located in engine compartment.
		4. Fuel system to include heated fuel and water separator.
		5. Fuel tank(s) to be mounted so as not to affect the balance of the unit (full or empty).
		6. Fuel fill, minimum four (4) inch diameter with chained cap and drop in basket type mesh strainer, shall permit easy fill operation, including access room, by all ground personnel (short or tall in height). Shall have clearance for high flow fuel fill nozzle.
		7. Fuel line(s) shall be securely fastened in place, installed to prevent strains, and protected by grommets where lines project through bulkheads.
		8. Fuel Drain: To be equipped with a ¼-turn ball valve(s), capped or plugged each tank.
	7. Engine Oil Filtration: Oil filters to be spin-on or cartridge type.
	8. Engine Oil Drain: To be equipped with a ¼ (one-quarter) turn ball shut-off valve (easily accessed). An extension hose, or piping, may be required to allow draining of oil into a bucket or pan that would be positioned at ground level. The ball valve, end of the hose, or piping would require a threaded cap or plug.
	9. Engine Cold Starting Aids (To be supplied on both engines):
		1. Glow plug system, air intake ribbon, or grid type heater.
		2. Engine Coolant Block Heater: Immersion type, 120-volt AC, with highest wattage available by OEM engine manufacturer.
		3. Engine oil pan heater, one (1) each, 300 watt, 120 volt AC, and immersion type.

## DRIVETRAIN:

* 1. Design: To be two (2) axles, single tire, 4x4.
	2. Transport Speed: Shall be capable of maintaining a continuous forward speed of not less than 40 MPH on dry level pavement.
	3. Carrier Transmission:
		1. ALLISONRDS4000, 6 -speed electronic.
		2. To include Auto-Neutral feature that when the air parking brake is applied that the transmission automatically shifts into neutral.
		3. To Include oil level sensor option and shall be supplied with the appropriate torque converter for this application.
		4. Shifting shall be accomplished via a touch pad shift control or multi-function joystick within easy reach of the operator.
	4. Transfer Case:
		1. A properly designed single or dual speed transfer case is acceptable.
		2. If dual speed: The hi-low range selection shall be electric over air actuated, operated from the cab and equipped with safeguards to eliminate range shifting at excessive speeds.
			1. For vehicle and equipment protection, if the shift is not completed by the electric/hydraulic system within one (1) minute, the system shall cease attempts at range shift and notify the operator of the failure by flashing light at the control switch.
			2. Operating range of the transfer case (2-speed) to be displayed on the main dash LCD screen.
	5. Axles:
		1. (\*) Front: Single front driven steering axle with single tire design. To be rated at 27,000 pounds minimum.

**32,000 LBS**

* + 1. (\*) Rear: Single rear driven steering axle with single tire design. To be rated at 23,000 pounds minimum.

**25,000 LBS**

* + 1. Axles to be certified by manufacturer as being suitable for use in this vehicle and be designed for single tire mounting.
		2. Front and rear tread widths not to vary more than two (2) inches. Wheel spacers shall not be used to obtain correct tread widths.
		3. Differential Locks: Limited-slip or driver controlled differential locks are required. If driver controlled, a single dash mounted switch will operate both locks.
		4. Steer axle to include bearings or bushings to help eliminate excessive wear due to side force exerted from blowing snow.
	1. Drive Lines: Shall include shielding or guards to prevent damage to specialized components, such as hydraulic components, in case of driveline failure.

## CHASSIS:

* 1. (\*) GVWR: 50,000 pounds minimum.

**52,000 LBS**

* + 1. (\*) GVWR equipped with snow blower spot cast/loading chute: 52,000 pounds minimum

**57,000 LBS**

* 1. Wheelbase: 170-inches maximum.
	2. Frame:
		1. Straight steel frame. Frame liners, wrappers, fish-plating, and bolt-on extensions are not acceptable. Cross members are to be bolt-on. Welding to the frame is not acceptable.
		2. Yield Strength: 110,000 PSI, minimum.
		3. RBM: 2,500,000 inch pounds per rail, minimum.
		4. Overall frame width to be between 34 and 39 inches nominal to minimize wracking and torsional stress during operation.
	3. Steering:
		1. All-Wheel steering is required, including the option of (a) front wheel steer, (b) crab, and (c) coordinate steering, all controlled through the cab steering wheel. Rear wheel steer selection to be controlled by rocker switch.
			1. An indicator showing the rear wheel position shall be in easy view of the operator.
			2. A safety system shall automatically limit the unit steering when the steering mode is not in “front wheel steer”. The OSHKOSH*,* MB*,* or WAUSAU Electronic All-Steer Systems are acceptable.
			3. Mechanical or hydraulic locking system shall immobilize rear axle in the event of failure or deactivation.
		2. For safety and emergency backup, mechanical linkage between front axle and cab mounted steering wheel shall be maintained at all times in all steering modes.
		3. An all hydraulic system may be utilized if an electric over hydraulic backup system is provided with valving and duplicate plumbing to guard against failure of hoses in the primary steering hydraulic system.
		4. To be full power or hydraulic power assist.
	4. Brakes:
		1. The service brakes shall be fully air actuated, drum and shoe type with s-cam or wedge and documented to conform to FMVSS 121.
		2. Electronic antilock brake system, 4S4M.
		3. Parking Brakes: The parking brakes shall be spring actuated, air released at the rear service brake air chambers.
		4. Brakes shall be enclosed and shielded to help protect against moisture and grit.
		5. Air System:
			1. Air Compressor: 16 cubic foot per minute (minimum).
			2. The air system for this unit shall be equipped with frame mounted, heated, air drier system. Shall be BENDIX AD-IS, or State approved equivalent.
			3. To include a BENDIX Puraguard System Filter installed between the engine air compressor and the air dryer.
			4. Quick release or relay valves to be included for front and rear brakes.
			5. Air Reservoir Tanks: Heavy-duty, steel construction, primary and secondary installed in protected locations.
			6. Primary air tank to include a shop air fill with a ¼ (one-quarter) turn ball valve with 3/8 (0.375) inch NPT threads, mounted on the outside of the left-hand or left-hand and right-hand side frame rail, easily accessible. Ball valve is to include a threaded plug or cap.
			7. Air tanks to have drain to remove moisture from system, easily accessible from side of unit by ground personnel (a lanyard type cord may be necessary).
			8. Safety overload valves to be included on air tanks.
	5. Tires and Wheels:
		1. Five (5) each, including spare, aggressive snow tread design, non-directional, radial tires, mounted on 10-hole, minimum, steel or aluminum rim. Tires and wheels to be adequately load rated for this application. All tires and rims shall be identical and shall be tubeless.
		2. SPARE(s) tire with mounted wheel to be shipped loose. Spare must fit both axles.
	6. Suspension:
		1. The spring hangers, pins and supports shall be heavy-duty to give long life.
		2. The pins shall be of the grease able type with substantial bronze bushings.
	7. Tow Hooks or eyes: Two (2) each, frame mounted, rear.
	8. All fasteners to be grade eight (8), per SAE J429.

## ELECTRICAL:

* 1. Master Electrical Switch:
		1. Single or dual high ampere master electric switch(es) to cut off power source from battery to the ground and remainder of electrical system.
		2. Located driver’s side, in cab or near battery location, easily accessed.
	2. Batteries:
		1. To be four (4) 12V maintenance free batteries with a minimum 950 CCA each.
		2. To be under hood or enclosed to prevent buildup of snow on and around the battery terminals, but be easily accessible. If a roll-out tray is required, stainless steel glides will be used.
	3. Charging System:
		1. Alternator: Minimum 200 AMP 12V or 100 AMP 24V, waterproof. If single alternator is provided, must be carrier engine driven.
		2. Any inverters used to power a 110-volt heated windshield are to provide an output waveform that has a pure sine wave and UL approved.
	4. All electrical control switches to be direct current rated.
	5. Circuit Breakers: To be located in an easily accessed weatherproof electrical panel.
	6. Lighting System:
		1. Headlights: halogen, with High/Low beam.
		2. Driving Lights: Two (2) each, LED, each having a combination spot/flood beam positioned on the outermost upper forward corners of the cab preferably on a light bar or state approved equivalent.
			1. A switch, common to both lights, shall have positions for: OFF/FLOOD/SPOT/BOTH or state approved equivalent.
			2. Mounts shall be a horizontal and vertical adjustable pedestal mount.
			3. Each individual light maximum output shall be minimum 3,200 lumens. (Combined lumens for spot and flood together shall be 6,400 lumens; each side)
		3. Stop, turn, tail, backup and marker/clearance lights shall be LED and meet FMVSS 108 regulations.
		4. Turn Signals shall be self-canceling with 4-way flashers.
		5. Cab interior dome lights shall be activated by door opening and operated by a driver controlled switch.
		6. Spot Lights: Two (2) each, GO-LITE Model 3067 or equal, to be located on left and right side of upper cab area (preferably on a light bar). Remote controls to be provided and placed on upper or lower dash, easily accessed by operator.
		7. Work Lights:
			1. When equipped with an air blower system*:* Two (2) each LED flood mounted left and right mid-ship and 3,200 lumens each minimum output. These lights are to include their own switch.
			2. Two (2) each 3,200 lumen flood, mounted left and right, rear of unit. To be facing rearward. These lights are to include their own switch.
			3. Lighted engine compartment(s), switched at compartment. Lights are to give more than adequate lighting. LED lights.
		8. Strobe Lights:
			1. Two (2) each LED strobe lights mounted on cab roof, visible from all directions.
			2. Two (2) each LED strobe lights inset mounted top rear of unit, shielded to prevent flashing of light into operator’s cab.
			3. All strobes: Left lens color to be amber, right lenses to be blue.
			4. Switch control center with “OFF/LOW/HIGH” to be within easy reach of operator or state approved equivalent.
			5. All cabling, flashers, modules, etc. required for a complete functioning system are required.
			6. Synchronized flash pattern shall be end user specified.
		9. All other lighting to conform to FMVSS regulations.
	7. Backup Alarm: Electronic with self-adjusting sound level located on rear of unit per manufacturer’s recommendations. Must conform to OSHA regulations.
	8. Wiring:
		1. All wiring shall be color-coded or continuously numbered every 18 inches minimum.
		2. Wiring shall be located for maximum protection from snow and ice build-up, grease, oil, fuel, and heat from engine and components.
		3. Routing through structural members to be protected by grommets.
		4. To be secured by clips at intervals to prevent rubbing or chafing due to movement.
		5. All applicable junction boxes, light housings, etc. to be constructed of corrosion proof material.
		6. Spade and bullet connectors are not acceptable.
		7. Outside of the cab wiring:
			1. All connectors to be corrosion resistant and waterproof.
			2. THERMOSEAL and WEATHER-PACK type connectors are acceptable.
		8. All digitally controlled electrical circuits shall be protected by solid state circuitry and logic. Power supplies to control modules shall be protected by manual and automatic reset circuit breakers. Master wiring circuitry boxes shall be mounted behind operator. Circuit breakers controlling all analog circuits shall be easily accessible.
		9. Non-Factory Wiring:
			1. All dealer/vendor installed items, which require connecting into the vehicle’s electrical system shall be done using an OEM factory modified wiring kit whenever possible. All non-factory wire connections (splices, connectors, etc.” shall be soldered and shrink tube insulated with adhesive sealant, thick wall polyolefin shrink tubing (3M EPS-300 or equal). No non-factory crimp connections allowed. No cutting or splicing into the factory wiring harnesses allowed. All electrical connectors shall have dielectric grease applied to terminals to help reduce corrosion.
			2. All accessories (strobe lights, operator controls, light bar, etc. shall be wired through a DC constant duty solenoid and controlled by bus bar mounted and permanently labeled auto-resetting circuit breakers. The solenoid shall be wired to the key switch.
			3. All non-factory wiring shall be encased in a totally sealed wiring harness (no plastic split loom) to help prevent corrosion from magnesium chloride or urea. The wiring harness shall be well secured to the truck with neoprene aircraft stainless steel tubing clamps. Rubber grommets shall be used at all areas where the wiring passes through areas that could damage the wiring.

## CAB:

* 1. The cab shall be positioned behind the broom; cab over design is not acceptable.
	2. Cab Shoulder Width: Minimum 56 inches and maximum of 72 inches, wide enough for a two (2) man cab, but narrow enough for adequate visibility to the left and right for the operator.
	3. Noise Suppression/Winterization:
		1. Sides and ceiling shall have sound suppression material.
		2. Floor and firewall to be insulated with a closed cell non-absorbent material and covered with rubber matting with a non-slip surface.
		3. Maximum 87 decibel (dB a-scale) noise level as measured 6 inches from the operator’s ear.
	4. Heater and Defroster:
		1. Must keep cab temperature at 50℉ while exterior is at -40 ℉.
		2. Primary Heater:
			1. Minimum rating of 50,000 BTU.
			2. To be fresh air type with defroster ducts to front windshields and right and left side windows.
			3. To include minimum three (3) speed fan(s) with variable temperature settings.
		3. Heater hoses are to include valves near the inlets and outlets of the heaters for use when maintenance is required on the heater preventing excessive coolant loss. Valves are to be easily accessed.
		4. Caged Defroster Fans: Two (2) each stainless steel dash or upper windshield mounted, two (2) speeds and independently controlled with adjustable gimbal type mounts.
	5. Air conditioning: To be internal; roof mounted is not acceptable.
	6. All outside air (fresh air) brought into the cab through heaters and air conditioner system is to be filtered by an easily accessed and replaceable air filter(s).
	7. Glass/Windows:
		1. All glass to be tinted safety glass, stick-on.
		2. Front windshield(s) to have a reverse or forward slope to minimize glare.
		3. Front windshield to have a minimum of two (2.0) square feet of glass area for every foot of cab width, for maximum visibility.
		4. Front windshield(s) shall be heated by electrical lamination. Glue-on heat strips are not acceptable.
		5. Front windshield and side windows to include driver’s area sun visor, fold-up style, green or gray tinted visor.
		6. Driver and passenger side windows to be pop-open vent type or power up/down. Sliding type windows are also acceptable.
	8. Wipers:
		1. Electric powered multiple speed wipers with intermittent feature and include wet arm washer(s) on front windshield(s).
		2. Side window wipers (on both left and right).
	9. Deluge System:
		1. Minimum 15-gallon capacity system is required with dedicated pump for visibility enhancement. The washer solvent shall be directed at each side window, each outside mirror, and the front cab glass by means of a minimum six (6) each dedicated nozzles. This is in addition to normal wet arm wiper systems.
	10. Seats:
		1. Driver’s seat shall be high-back, premium, 6-way adjustable, with adjustable lumbar support and air ride suspension.
		2. Passenger seat to be manufacturer’s standard.
		3. Seat upholstery to be fabric (cloth). Vinyl not acceptable on seating surface. Sides and back may be vinyl.
		4. Both seats to have seat belts and shoulder harness. Shoulder harness may be three (3) point type.
	11. Entry:
		1. To have raised lug or expanded metal (grip-strut) construction steps.
		2. Grab handles to be provided to assist in entering or leaving cab, or gaining access to catwalk(s) around engine compartment (if so equipped).
		3. For future reparability, door hinges shall not be welded to the cab frame and the door.
		4. For extended door life, door hinges (piano type) shall fill the area just above the lower corner radius of the door to just below the window opening minimum or have three (3) hinges minimum. Hinges to be replaceable.
		5. Door stop webbing, minimum two (2) each, on each door or one (1) webbing and one (1) shock absorber, to prevent strong winds from “over opening” doors.
	12. Exterior rear view mirrors: heated, electrically powered (vertically and horizontally), combination including upper standard lens and lower convex lens, fully adjustable, 15x8 inches minimum. Mirrors to include stainless steel or painted steel brackets, at a minimum, with the mirror’s body material being stainless steel or ABS (thermoplastic) type.
		1. Electrical for heat to mirrors to include a dash mounted independent switch.
	13. Shall include back-up camera, waterproof, IR, of metal construction.
	14. Steering wheel to be tilt and telescoping type.
	15. Gauges/Indicators and Controls:
		1. All gauges, indictors and controls mounted in the cab are to be within easy reach and view of the operator. Instrumentation may be centered on a color liquid crystal display.
		2. A Hinged or front serviceable type gauge array or Liquid crystal display must display a full complement of gauges or indicators, as specified, included as a minimum:
			1. Hour Meters (One for each engines): Running engine activated. Meter is to be capable of displaying 99,999 hours.
			2. Audible and visual warning system for low engine oil pressure and high engine coolant temperature (both engines).
			3. Voltmeter or ammeter gauge (for each alternator, if applicable).
			4. Air pressure with visual and audible low air pressure warning (if air system is utilized).
			5. Engine oil pressure gauge with warning light for both engines.
			6. Fuel gauge.
			7. Engine coolant temperature gauge (both engines).
			8. Tachometer (both engines).
			9. Speedometer and odometer.
			10. Transmission temperature warning light.
			11. Hydrostatic fluid low-level warning system and warning light.
			12. Parking brake warning light.
			13. DCDL (Driver Controlled Differential Lock) ON/OFF single switch with ENGAGED indicator light for both drive axles if equipped.
		3. All gauges to be back lit.
		4. Any and all gauges that show pressure, temperature, etc., are to be in U.S.A. measurements such as PSI, Fahrenheit, etc.
		5. All switch identifications are to be appropriately labeled and back-lit.
		6. All gauges and controls to be properly identified.
			1. DYMO type tape labels and stick-on labels are not acceptable; however, labels with OEM part numbers that are parts manual listed are acceptable.
		7. Toggle switches controlling electrical components to be metal (plastic is not acceptable). Rocker type switches may be plastic or metal.
	16. Horn: Air or dual electric horn with 113 decibel minimum sound level.
	17. Hydraulic hoses are not to enter the operator’s cab.

## BODY:

* 1. Engine Compartment(s):
		1. Fully enclosed with easily removable, hinged, or roll-up access doors on left and right sides, or tilt hood. Hinged doors are to be bolt-on (welded on doors are not acceptable).
		2. Top access door, or tilting hood, or removable engine enclosure with lifting eyes (if possible) to accommodate engine removal.
	2. Shall provide adequate access to the top, left, and right sides, for maintenance.
		1. Walkways to be of raised lug or expanded metal (grip-strut) construction.
		2. Walkways shall include minimum one (1) inch tubular, 42 inches in height, handrails or guardrails and shall be included for steps that access walkway.
	3. Anti-Sail mud flaps, front and rear of each axle wheel position (if lower edge of fender is more than 23 inches from ground).
	4. Steel fenders over front and rear wheels. Fenders to be fully undercoated.
	5. Self-tapping bolts used in sheet metal construction are not acceptable.

## HYDRAULIC SYSTEMS:

* 1. As a minimum, hydraulics will be provided to power brooms, blowers, and forced air blowers as ordered.
	2. For high-speed transport, hydraulics, powered by the carrier engine shall be able to lift the blower assembly completely off the ground.
	3. Weight Transfer system: To increase traction to the carrier and reduce wear and tear on caster wheels, the carrier is to be equipped with a weight transfer system, which, when set from the operator’s position, automatically maintains approximately 50% of the blower and/or broom head weight to the chassis.
	4. Hydraulic Reservoir(s):
		1. Designed for adequate cooling and shall be properly baffled and sized.
		2. Suction strainer, 100 mesh minimum, with sump area and provisions made for easy cleaning located above pump level.
		3. Sight gauge visible by ground personnel is required.
		4. Equipped with a filler neck with strainer and air vent.
		5. Drain to be equipped with a ¼ (one-quarter) turn ball shut-off valve (easily accessed). An extension hose, or piping, may be required to allow draining of oil into a bucket or pan that would be positioned at ground level. The ball valve, end of the hose, or piping would require a threaded cap or plug.
	5. Hydraulic Filtration:
		1. Spin-on filter(s), with properly rated non-flow restricting check valves installed to isolate filter(s) for servicing or filters to be located above the hydraulic tank to reduce oil loss during servicing.
		2. Filtration on both the high pressure and low pressure circuits shall be in compliance with SAE J931. There shall be a 5-micron absolute rating on the hydrostatic pumps’ filters and placed in the charge pressure lines. There shall be a filter indicator light on the cab control panel indicating filter replacement.
	6. Hydraulic tubes, hoses and fittings used shall conform to SAE J514, J516, J517 and J524. A minimum number of fittings, joints and connections shall be used to prevent excessive backpressure, vibration and leakage. Hydraulic lines shall be of sufficient size to permit free flow of hydraulic fluid at temperatures down to -40 ℉. Arctic rated hoses required.
	7. Quick hitch and weight transfer systems shall be powered by the carrier engine.

## SNOW BLOWER

* 1. To be a heavy-duty two-stage system capable of producing **5,000 TPH** (ton-per-hour) minimum. Refer to SNOW BLOWER PERFORMANCE SPECIFICATIONS later in this specification.
	2. Drive System:
		1. To consist of a two (2) speed or two stage single reduction, pressure lubricated, full torque, drop box and a three (3) plate 14-inch diameter clutch, minimum.
			1. Clutch is to be manual or power assist engagement from the cab.
		2. Drive Lines: To be heavy-duty, compatible with torque ratings commensurate with the load imposed.
		3. Impeller drive shall be direct mechanical.
		4. Ribbon drive to be fully hydrostatic.
		5. Shear pin(s) shall be located at the furthest point from drive mechanism so as to minimize damage to drive train components. The shear pins shall also incorporate replaceable shear pin bushings. Shear pins are to include a relief cut in the shear area (standard off the shelf bolts are not acceptable).
			1. **SPARE** Shear Pins: To include 25 complete sets including bushings.
		6. Hydrostatically driven components shall be protected by proper hydraulic relief circuits.
	3. Snow Blower Head:
		1. Ribbon (Reel) Configuration:
			1. Diameter: Minimum 52 inches.
			2. Ribbon type first stage is required to feed the second stage impeller. Two (2) stage design required, impeller and ribbon/auger to be independent components.
			3. The ribbons (cutter blades) shall be in two (2) sections (minimum) per side for ease of replacement.
			4. Ribbon shall be a closed or open center design.
		2. Impeller (fan) Configuration:
			1. Diameter: Minimum 59 inches.
			2. Fabricated construction. Cast construction is not acceptable.
			3. To have four or five paddles minimum, individually replaceable, attached with countersunk fasteners (if fasteners are on the face of the paddle). Shall be made of 3/8 (0.375) inch thick HARDOX AR400 steel or ½ (0.5) inch thick ASTM A656-93 Grade 80 Steel minimum.
			4. Snow volute controllable from the cab, rotating through a minimum of 125 degree arc, left to right. Flat casting to be to the right.
			5. Impeller housing shall be constructed with a removable liner for protection and friction reduction (poly type is not acceptable). To be 3/16 (0.1875) inch thick AR-400 steel or better.
		3. Caster Wheels:
			1. To include, minimum of two (2) each, swiveling, minimum 10-inch diameter x minimum four (4) inch wide, steel casters. Vulcanized rubber on steel is not acceptable.
			2. **Pneumatic Caster Wheels in lieu of steel** (Optional Item- Pricing is required)
			3. The caster wheels shall be capable of supporting the entire weight of the head.
			4. To include a height adjustment system for each wheel.
			5. **SPARES:** To include two (2) each additional, spare caster wheel assemblies (meaning totally assembled and ready to bolt-on to the anti-shimmy damper), which include the applicable; wheels with tires and tubes, bearings, axles, and hub assemblies. Mounting hardware, nuts, bolts, washers, etc. are to be included. To be shipped loose.
		4. Skid Shoes:
			1. In addition to the caster wheels, the rotary head shall have adjustable carbideskid shoes located at each side of the rotary head, behind the cutting edge inside the width of the rotary head.
			2. To include a height screw type adjustment system for each shoe.
		5. Cutting Edge: Two (2) piece maximum, carbide, reversible, ASSHTO punching on six (6) inch spacing.
			1. Plastic/Poly cutting edge in lieu of carbide. (Optional Item- Pricing is required)
	4. Spot Casting/Loading Chute (Optional Item- Pricing is required)
		1. A fixed (one piece), heavy-duty, mounted spot casting/loading chute shall be supplied, such that the impeller discharge may bypass the chute and discharge (flat cast) to the right and maintain the minimum 125 degree arc as specified above.
		2. The chute shall rotate minimum 180 degrees with a hydraulic motor, chain driven, and heavy-duty bearing system (wire or cable is not acceptable).
		3. All chute functions to be operated utilizing electrical over hydraulic control valves.
		4. Hydraulics to utilize main carrier hydraulic system (a separate electric pump is not acceptable).
		5. The directional control chute to be equipped with a hydraulic operated deflector flap, capable of discharging the snow from 65 degrees from vertical to a 40 degree downward angle for precision spot casting or loading trucks.
		6. Liner:
			1. The inside back of the chute to be lined with ½ (0.5) inch thick TYVAR 88 or equivalent, or 3/16 (0.188) inch thick AR-400 steel or better (full length, but not including deflector flap).
			2. The liner is to be bolted in, using stainless steel, aircraft style, flat head, 1/4 (0.25) inch diameter minimum, flat head socket cap screws with countersunk washers, providing a flush surface. To be on 12 inch centers, minimum.
		7. Height:
			1. Overall: Top of chute must not exceed 162 inches from ground level in the operating position, head in float.
			2. Unit to be capable of easily loading into 12 to 20 cubic yard dump trucks with up to nine (9) foot high side boards with a minimum distance of four (4) foot away from the right or left side of the snow blower head.
	5. Dedicated Blower Head Mounting:
		1. The front attachment to front axle dimension shall be kept as close as possible. Minimized axle to attachment dimension are necessary in order to have the operator as far forward as good engineering practices will permit, allowing greater visibility and maneuverability while clearing runways and taxiways.
		2. The dedicated Blower shall utilize the same quick hitch system for the head and the hydraulics as specified later in this specification.
	6. (\*) Testing Requirements: Bidder is to supply information with their bid as to meeting our capacity requirements (5000 TPH) as per AC 150/5220-20, CHAPTER 7 OPERATIONAL STANDARDS AND TESTING.

## 18/20/22 FOOT RUNWAY BROOM ATTACHMENT:

* 1. It is the intent of this specification to describe an 18-foot standard length and 20/22 foot optional lengths x 46 inch diameter brooms.
	2. Shall be of any suitable design, pushed by the cab forward propulsion vehicle, allowing the operator to directly observe the area being swept.
		1. Core(s) shall provide an 18/20/22 foot sweeping width at 90 degrees.
		2. Broom head must be capable of being angled a minimum of 35 degrees, to either side.
		3. Broom lift, rotation and angling will be accomplished hydraulically.
	3. Brush Drive:
		1. To provide a minimum 2600 pound foot torque.
		2. Brush shall be rotating horizontal cylinders, replaceable core type with bearings and supports at both ends.
		3. Brush shall be the stacked wafer type. Strip cores are not acceptable.
		4. The brush shall be driven by hydrostatic drive motor(s), end or center mounted to the brush cores to properly distribute drive torque through the broom head.
			1. All cores for any brooms offered shall be dynamically balanced. Certification due at time of pilot inspection.
		5. Brush shall be capable of varying rotational speeds, from within the cab, up to 315 RPM to compensate for brush wear.
		6. Brush speed controlled by ground speed:
			1. To automatically adjust the brush rotational speed depending on the vehicle speed. An increase in vehicle speed shall increase the broom rotational speed. There shall be a minimum of six (6) ranges for the operator to choose from to match the conditions.
			2. The broom rotational speed shall also compensate for bristle wear to maintain a constant bristle tip speed relative to vehicle speed no matter what the brush diameter.
			3. The result is that the broom rotational speed must increase as the vehicle goes faster and as the brush wears.
			4. Manual override capabilities shall also be supplied.
			5. To include automatic pattern adjustment feature and broom rational speed tachometer.
		7. The cylindrical shaped brush shall consist of two (2) each, approximately nine (9/10/11) foot, in length, cores with 46 inch diameter wafers.
		8. Bristles shall be fastened in a radial wafer to dissipate heat and cushion shock loads generated from sweeping.
		9. Brush shall have the necessary degree of freedom to follow changes in elevation of the pavement being swept, while sweeping either left or right at the rated sweeping speed.
		10. Brush shall sweep the same width swept path whether angled left or right.
		11. The brush fill shall be mixed (50/50), alternating sections of polypropylene and steel wire.
			1. The poly bristles (8.25 pound) shall be 0.060 x 0.090 inch oval shape.
			2. The wire (10 pound) shall have an average diameter of 0.018 inch, galvanized or stainless steel.
			3. SPARES: One (1) each, full set of poly and one (1) each, full set of wire shall be included (shipped loose, not mounted) adequate for length of broom ordered.
		12. All steel wire wafers in lieu of mixed (50/50) described above, shall be provided when ordered. (OPTIONAL (for 18/20/22 foot core): Pricing is required)
			1. The wire (10 pound) shall have an average diameter of 0.018 inch, galvanized or stainless steel.
			2. SPARES: One (1) each, full set of wire shall be included (shipped loose, not mounted) adequate for length of broom ordered.
		13. Brush Replacement:
			1. The assembly shall permit field replacement of brush inserts with maximum ease.
			2. If core(s) must be removed to replace brushes, bidder must supply two (2) each carts, with caster wheels, for each broom core section.
			3. SPARES: Additional, one (1) each, core(s) (left and right if applicable) are required (shipped loose, not mounted).
		14. A hydraulic elevation mechanism shall provide adequate ground clearance for transport when not in use.
		15. An easily accessible fine height adjustment shall be provided to compensate for brush wear.
		16. Automatic Broom Pattern Control:
			1. In addition to the manual system brush pattern adjustment, there shall be automatic broom pattern control with adjustment from the cab.
			2. There shall be a three (3) position momentary toggle switch in the cab.
			3. Toggle (or button) forward/back increases/decreases the patter in predetermined increments.
			4. These pattern adjustments can be achieved in the cab while moving and without raising the broom head.
			5. There shall be an additional three (3) position pattern control switch at the broom head for control from outside.
			6. When the switch is in the run position, a time based system shall be used to readjust the broom pattern by counting the time in the broom down position.
			7. When the preset time is reached, the broom head will index down a preset amount.
			8. At that time, the timer is reset and restarts counting.
			9. Time running in the up mode is not counted.
			10. Manually adjusting the pattern from the cab or broom head will reset the timer.
	4. Hood and Deflector:
		1. A heavy gauge sheet steel brush hood shall be securely bolted to the brush frame and be adjustable to within 3/8 (0.375) inch of the brush bristles.
		2. The hood shall be designed to prevent ice buildup during freezing slush removal operations at rated speeds. System is to include a hydraulic snow shed that will allow the operator to tilt an auxiliary hood forward in order to dump the snow into the path of the broom.
		3. The adjustable hood shall incorporate an adjustable and replaceable (bolt-on) snow stripper to prevent carryover of snow and clogging of snow in heavy snow conditions.
		4. Snow Deflector:
			1. Shall be mounted on the front of the brush hood and be capable of changing the angle at which snow leaves the brush.
			2. The deflector’s angle is to be controlled hydraulically from the operator’s seated position from within the cab.
			3. Warping of the snow deflector is not acceptable.
	5. Castor Wheels:
		1. The broom shall have a minimum of two (2) caster wheel assemblies with dual or single tires, or a quantity of four (4) single tires, located behind the head and inside the sweeping path.
		2. Casters shall be of the full 360 degree revolving type and include friction shimmy dampers as needed.
		3. Hubs must be demountable with steel rims.
		4. Tires to be minimum 180/70R8 (18x7xR8), 16 ply for increased resistance to extreme side turning loads. Tires to be foam filled.
		5. Tires and wheels are to be rated by tire and wheel manufacturer to operate at speeds up to 35 MPH with loads and pressures imposed during normal sweeping conditions.
		6. SPARES: To include two (2) each, complete caster wheel assemblies ready for bolt-on to the anti-shimmy damper. This includes foam filled tires with tubes that are mounted onto the wheels that are mounted to the hubs that include bearings that are mounted onto the axles, etc. Mounting hardware, nuts, bolts, washers, etc. are to be included.
	6. Frame:
		1. Frame shall be fabricated of heavy gauge tubular or channel section steel, reinforced to prevent loading distortion and include adequate cross section modulus to ensure no torsion distortion during normal operation.
	7. Broom Hitch:
		1. The broom hitch shall provide low friction, free flotation, shock absorbing, and weight transfer for the broom head (weight transfer, is required for proper functioning of the broom).
		2. The low friction, free flotation is required independent of broom chassis for vibrations and bounce considerations and to accommodate surface irregularities.
			1. A parallel arm system with a minimum four (4) horizontal pins shall be used.
			2. The arms shall be box or “I” beam construction for torsional stiffness with appropriate diameter pins on grease able low friction bushings, pre-lubricated type (no metal on metal).
	8. Controls:
		1. Controls for the broom in the operator’s cab shall include:
			1. Variable brush speed control, up to 400 RPM.
			2. Broom angle.
			3. Snow deflector.
			4. Broom lift.
			5. Necessary instrumentation for broom operation.

## FORCED AIR BLOWER SYSTEM: (Optional Item- Pricing is required)

* 1. Blower:
		1. Capacity: Minimum 20,000 CFM air volume rated at inlet side of blower.
		2. To be centrifugal type blower with double outlets located left and right of the unit.
		3. To be direct driven and mounted to the hydrostatic motor drive.
		4. Air intake for blower system to be mounted to minimize the intake of snow, ice, and other airborne contaminants.
		5. An operator controlled blower drive disconnect shall be installed to permit broom functions without the blower and also permit the blower functions without the broom.
		6. Location: To reduce noise level in the operator’s station, mounting of the air blower directly behind the cab is not acceptable.
	2. Nozzles:
		1. The blower nozzles’ control shall be directional, left, right, or off and interlocked with the broom head angle to always blow in the direction of broom casting.
		2. To include a hydraulic system for raising the nozzles for transport, from inside the cab, shall be provided. Nozzles, when raised, are not to extend past the tire’s outside width.
		3. Minimum air velocity rated at each outlet nozzle to be minimum 350 MPH, measured at a distance of 12 inches from nozzle outlet exterior while broom is under load.
		4. (\*) Velocity requirement must be certified by an independent test facility provided not later than the pilot inspection. Testing must be done at outlet nozzle as per above.
		5. Nozzles shall be positioned so that service brakes do not ingest sufficient snow to become ineffective.
	3. Hydraulics:
		1. Pumps: Direct driven, variable displacement piston. Belt or chain driven is not acceptable. To be EATON, SAUER-DANFOSS, REXROTH, or State approved equivalent.
		2. Motors: To be EATON, SAUER-DANFOSS, REXROTH, or State approved equivalent.
		3. Hydraulics to be powered by auxiliary engine; independent of broom hydraulics.

## QUICK ATTACH HITCH SYSTEM:

* 1. Not required for dedicated blower.
	2. Both the snow blower head and the runway broom assembly shall be mounted onto the front of the carrier by means of a quick attach hitch system by a one (1) person operation.
	3. Carrier:
		1. Shall allow mounting of any of the attachments being provided with this unit.
		2. To provide a parallel lift.
		3. Activated by two (2) each double acting cylinders, controlled from the operator’s position in the cab.
		4. All bearing surfaces shall be equipped with grease fittings.
	4. Heads (Snow Blower and Runway Broom):
		1. Shall include two (2) each flame cut curved arms that will hook into the upper receptacle of truck hitch.
		2. Locking pins, manually installed, to be provided to hold head in relative position with vehicle.
		3. Mating, except for locking, shall be accomplished hydraulically by controls from inside the cab.
	5. Changing of Attachments:
		1. In order to keep time at a minimum from changing from snow blower to runway broom or visa-versa, a maximum of 30 minutes is allowed to perform this task by one person that is familiar with the system. Testing of changing from each unit to the other will be performed by the manufacturer during the pilot inspection.
		2. Drive shafts are to be equipped with a quick connect coupling (keyed flange with swing bolt, or equivalent.
		3. The drop box shall not require removal of snow blower head drivelines while sweeper head is attached and operating. Appropriate warning tags are required, if necessary.
		4. Multi-Coupling Plate:
			1. The multi-coupling plate is a tool allowing the simultaneous couple and uncouple of the hydraulic lines used for all hydraulic functions except ribbon and broom core drive.
			2. A STUCCHI vented coupler manifold is to be used to release residual pressure prior to disconnecting hydraulic quick-couplers.
			3. It shall also allow for displacement of fluid in the lines during connection.
			4. No more than six (6) hydraulic connections are to be made with each manifold. If more than six (6) lines need to be connected, additional manifolds are to be used (or aMulti-Coupling Plate) on all hydraulic lines that need to be separated from carrier when an attachment is removed.
			5. To include quick coupler caps or plugs with cable or chain type retainer regardless of system used.

## TRAINING: (OPTIONAL – Pricing is required)

* 1. Total of 16 hours at the State Equipment Fleet Maintenance Facility as listed on the Purchase Order. For award purposes, price should include all travel and training related costs to Anchorage, Alaska. Any travel beyond Anchorage will be billed at the actual rate and a separate Purchase Order will be issued.
	2. Bidder to provide a qualified factory trained instructor(s), within 30 days of acceptance by the State. Advanced notice is required.
	3. To include a minimum of eight (8) hours of operator training including the following, as a minimum applicable agenda:
		1. Operating procedures per operating manual.
		2. Break-in procedures.
		3. Equipment limitations.
		4. Operator maintenance.
		5. Before operations checks and lubrication.
		6. Safety.
		7. Cold weather operations.
		8. Jump starting.
		9. Welding on equipment.
		10. Towing or transporting equipment.
		11. Instruments and controls.
		12. Gauge interpretation.
		13. Equipment operation, Do’s and Don’ts.
		14. Attachment operation, Do’s and Don’ts.
	4. To include a minimum of eight (8) hours of mechanics (Journeyman level) training including the following theory, trouble shooting, and test procedures for, as a minimum applicable agenda:
		1. Electronics.
		2. Electrical.
		3. Hydraulics.
		4. Air system.
		5. Drive train.
		6. Engine and transmission electronics.

## MISCELLANEOUS:

* 1. Additional Safety Features:
		1. Units shall not be able to crank/start when clutch or hydraulic pump is engaged.
		2. Units shall not be able to engage tool drives when engine speed is above idle speed.
		3. To include dash or control box mounted engagement indicator light.
	2. Paint:
		1. Lead free acrylic urethane or polyurethane epoxy.
		2. Color to be FAA approved Chrome Yellow.
		3. To include sandblasting or mill scale free steel and three (3) mils of appropriate primer, including frame and wheels.
		4. Metal portions of broom facing the operator shall be flat black to minimize glare.
		5. The inside of the engine housing is to be painted a gloss yellow or white.
	3. Easy access to all maintenance components shall be provided for items such as air cleaners, batteries, radiator fill and drain, oil filters, oil drain (hydraulic and engine), generator, etc.
	4. Winterization: Entire unit to be winterized to provide satisfactory performance in temperatures to -40 ℉.
	5. Fire Extinguishers: To have two (2) each five (5) pound Halotron, or equivalent, easily accessible to operator. One (1) in cab and one (1) exterior of cab. Mounting location will be determined at time of pilot inspection.
	6. Dimensions:
		1. (\*) Overall height (not including spot casting/loading chute), 144 inches (12 foot), maximum. Highest point may be exhaust.

**142”**

* + 1. (\*) Overall transport width, without broom or air chutes, 102 inches (8 foot 6 inches) maximum.

**112”**

* + 1. (\*) Transport width, with 18 foot broom angled, 214 inches (17 foot 10 inches) maximum.

**16’9”**

* + 1. (\*) Overall length, with 18 foot broom angled, 497 inches (41 foot 5 inches) maximum. (Per Amendment 1 - (\*) Overall length, with 18 foot broom angled, 497 inches (41 foot 5 inches) approximately (+/- 1 foot)

**40’5”**

* + 1. (\*) Turning diameter, outside wall to wall, utilizing 4-wheel steer and with 18 foot broom angled 65 feet maximum.

**59’8”**

* 1. Weight and Balance:
		1. (\*) Balance: Unit must be able to stop transversely on a 30 percent grade with no danger of overturning.
		2. (\*) Gross Weight, with 18/20/22 Foot Broom attachment in carry/transport position.

**49,825 W/ 22’ BROOM**

* + 1. (\*) Gross Weight, with Blower and Loading Chute attachment in carry/transport position.

**49,600 W/ 22’ BROOM**

* + 1. (\*) Weight on Front Axle: With 18/20/22 Foot Broom attachment in carry/transport position.

**31,900 WITH 22’ BROOM**

* + 1. (\*) Weight on Front Axle: With Multi-Purpose Blower attachment in carry/transport position.

**27,550 LBS**

* + 1. (\*) Weight on Front Axle: With Multi-Purpose Blower and Loading Chute attachment in carry/transport position.

**30,200 LBS**

* + 1. (\*) Weight on Rear Axle: With Dedicated 18/20/22 Foot Broom attachment in carry/transport position.

**19,925 WITH 22’ BROOM**

* + 1. (\*) Weight on Rear Axle: With Dedicated Blower and Loading Chute attachment in carry/transport position.

**19,400 LBS**

* + 1. Weight Scale Verification Slips:
			1. Required not later than time of delivery (when applicable).
			2. Separate total weight of carrier with blower and air system.
			3. Separate total weight of carrier with broom and air system.
			4. Separate weight on the carrier’s front tires with the snow blower in transport position.
			5. Separate weight on the carrier’s front tires with the broom in the transport position.
	1. VHF Radio (OPTIONAL – Pricing is required)
		1. To be an ICOM Model ICA120 VHF (AM) aeronautical band and MOTOROLA APX 1500, complete with microphone, speaker, external transmit/receive antenna mounted on cab, and to include frequency(s) if listed on the Purchase Order.
		2. The MOTOROLA APX 1500 shall be 700/800 MHz, Model M36URS9PW1AN with optional dash mount and no antenna.
		3. Installation:
			1. To include noise canceling microphones, external speakers (for inside cab), and cab mounted external antennas.
			2. To be shipped loose and installed by State of Alaska personnel.
	2. Diagnostic Software (OPTIONAL – Pricing is required)
		1. OEM Diagnostic software must be available for purchase by SOA. Aftermarket software or scanners will not be acceptable.
		2. Must be capable of the following; at a minimum:
			1. Must be capable of retrieving and clearing all chassis, engine, transmission, or cab diagnostic codes.
			2. Must be capable of displaying live streaming data. (E.G. Engine sensor temperatures, pressures, speeds, etc.)
			3. Have the ability to perform calibrations and diagnostic tests.
		3. If applicable, must be able to communicate a replaced DPF to the ECM.
		4. Training must not be a requirement for software purchase.
		5. Pricing must include ALL hardware and software necessary to perform listed duties. Does not include a laptop, if needed.
		6. Supporting documentation of products being offered and itemized costs may be requested.
	3. Component Sourcing:
		1. Due to critical nature of vehicle mission and parts support, only current production componentry shall be supplied.
		2. The bidder shall provide only unused, newly manufactured components are supplied.
		3. Upon the request of the purchaser, the bidder shall provide copies of purchase orders and invoices properly dated after bid award to verify the source and newness of these components.
		4. Purchase orders and invoices shall reference the component manufacturer, manufacturer's model and/or part number, and the bidders and/or vehicle manufacturer's name and part number.
		5. In the event any of these components are manufactured by either the bidder or vehicle manufacturer, documentation shall be provided indicating manufacture date and chassis installation date by serial number.
		6. Failure to provide appropriate documentation of component sourcing shall be considered cause for rejecting the delivered vehicle. The burden of proof shall lay with the bidder.
	4. Local Support:
		1. Because of the critical nature of use for this equipment, service and technical support are considered an integral part of its purchase. Therefore, all bidders must be authorized dealers of the vehicle proposed, with service facilities in Anchorage as a minimum.
		2. The local service facilities must be capable of servicing the entire unit including the chassis, and any auxiliary equipment provided thereon.
		3. Prior to award, the State reserves the right to inspect the bidder’s local maintenance facility and request documentation on training and experience.
	5. (\*) Bidder is to provide engineering hydraulic power calculations confirming the broom speed and available torque values with bid submitted. This includes sizes and specifications of all components from the engine to the broom shaft including specification sheets for the broom and air blower hydrostatic pumps and motors showing type, size, and manufacturer. Efficiency losses must also be accounted for. The calculations must be understandable, complete, logical, and in a mathematical order per SAE and the Fluid Power Society standard formulas and practices. The burden of proof is the responsibility of the bidder.

## INSPECTION: (OPTIONAL item at the States discretion)

* 1. Prior to shipment from the manufacturer's plant, representatives of the State will inspect the completed unit for conformance to specifications. The completed unit, component equipment, and accessories shall be inspected and/or tested by the bidder or bidder's contractor for compliance with specifications, PRIOR to the arrival of the State inspection team.
	2. The successful bidder is to provide the State with a minimum 30 days’ notice prior to the inspection.
	3. Prior to the arrival of the State inspection team, a completed pilot unit, component equipment, and accessories shall be inspected and/or tested by the contractor for compliance with specifications.
	4. If the unit is not ready (complete and ready to go to work) when the State inspection team arrives to do the inspection, another inspection trip may be necessary for the same number of State inspectors to return to inspect a completed unit. All additional inspection trip costs as per below will be paid by the bidder. Additional late delivery fees may also be required.
	5. The contractor shall provide full access to the State inspection team.
	6. These inspections by the State shall be thorough and very critical, and will encompass a complete review of the specifications. Adequate time and technical personnel shall be made available to assist the State in these inspections.
	7. The bidder (responsible sales rep) shall also be in attendance.
	8. Inspection trip costs for State employees shall be the States burden. Re-inspection (if re-inspection is required) shall be the Contractors burden.
	9. It shall be the responsibility of the State inspection team to technically inspect and test the unit for compliance with the specifications.
	10. It shall be the responsibility of the Contracting Officer’s Representative to observe the inspection and test to assure compliance with the published terms, conditions, and specifications of the bid, and to mediate any disputes, which may arise between the contractor and the Department of Transportation's representatives.
	11. FINAL ACCEPTANCE REMINDER: Final acceptance is at final destination; however, all major tests will be conducted at the contractor's place of business unless the State has reason to believe alterations or damages have taken place which may have changed the performance or design characteristics of the unit since the time of inspection at the contractor's location.
	12. A final inspection of the unit will be conducted at FOB point to assure that the unit still meets specifications.
		1. Should the State determine that it is necessary to have the representative of the Contracting Authority attend the delivery inspection due to numerous specification discrepancies that were not corrected per the Pilot Inspection Report, or the vendor requests the representative of the Contracting Authority to attend the delivery inspection, the vendor shall pay round trip coach airfare (not supersaver) from Anchorage to the assigned location and per diem at $150.00 per day.

END OF SPECIFICATION

## **LOT 1- MULTI-PURPOSE CARRIER**

Item Total

# Unit Description Amount

1 ea. 4X4 Multi-Purpose Carrier- Includes 5000 TPH snow blower head,

 18-foot runway broom, and quick attach hitch system. $702,450

 Carrier Year, Make & Model Offered: 2021 LARUE T95

 Blower Year, Make & Model Offered: 2021 LARUE R52H

 Broom Year, Make & Model Offered: 2021 LARUE FB18

**OPTIONAL ITEMS- PRICING REQUIRED**

8.0 Paper Publications $0

108.3.3.2 Pneumatic Casters in lieu of Steel $0

108.3.5.1 Plastic/Poly Cutting Edge in lieu of Steel $0

108.4 Spot Casting/Loading Chute $10,400

109.0 20-Foot Runway Broom (In lieu of 18’ Broom) $0

109.0 22-Foot Runway Broom (In lieu of 18’ Broom) $0

109.3.12 All Steel bristles in lieu of Steel/Poly, 18 Foot Broom (Upcharge Only) $0

109.3.12 All Steel bristles in lieu of Steel/Poly, 20-Foot Broom (Upcharge Only) $0

109.3.12 All Steel bristles in lieu of Steel/Poly, 22-Foot Broom (Upcharge Only) $0

110.0 Forced Air Blower $1,000

112.0 Training $1,500

113.9 Diagnostic Software $1,200

The actual F.O.B. point for all items purchased under this contract is the final destination anywhere within the State of Alaska. Ownership of and title to the ordered items remains with the contractor until the items have been delivered at their final destination and are accepted by the State.

For pricing purposes, the F.O.B. point is dockside Seattle/Tacoma.

The cost of shipping and delivery for orders beyond the limits of Seattle/Tacoma dock will be handled as follows. The contractor will prepay the shipping and delivery charges to any destination named by the State in its order. The contractor will charge-back those shipping and delivery charges to the State as a separate line item on the State’s invoice. All shipping charges over $100 must be documented by a copy of the actual shipping invoice and received with the invoice charge to the State.

Required Delivery: Maximum 330 daysafter receipt of order (ARO).

## **LOT 2- DEDICATED BLOWER**

Item Total

# Unit Description Amount

1 ea. 4X4 Carrier Mounted Dedicated Blower- Includes 5,000 TPH snow blower head. $587,840

 Carrier Year, Make & Model Offered: 2021 LARUE T95

 Blower Year, Make & Model Offered: 2021 LARUE R52H

**OPTIONAL ITEMS- PRICING REQUIRED**

8.0 Paper Publications $0

108.3.3.2 Pneumatic Casters in lieu of Steel $0

108.3.5.1 Plastic/Poly Cutting Edge in lieu of Steel $0

108.4 Spot Casting/Loading Chute $10,400

109.0 Forced Air Blower $5,000

110.0 Training $1,500

111.7 Diagnostic Software $1,200

113.8 VHF Radio $3,600