

**BOARD OF FIRE COMMISSIONERS  
WOODBIDGE TOWNSHIP FIRE DISTRICT #9  
RE-BID  
GENERAL CONDITIONS AND SPECIFICATIONS TO  
RE-FURBISH SAULSBURY AIR-LIGHT  
UNIT 9-3-4  
BID # 2022-02  
Issued: Friday, December 9, 2022**

By: Michael Rudy, Acting Chairman  
Board of Fire Commissioners  
Woodbridge Township Fire District #9

William F. Kenney, Jr., Business Administrator

**BOARD OF FIRE COMMISSIONERS  
WOODBIDGE TOWNSHIP FIRE DISTRICT #9**

**GENERAL CONDITIONS AND SPECIFICATIONS TO  
RE-FURBISH SAULSBURY AIR-LIGHT**

**UNIT 9-3-4**

**RE-BID # 2022-02**

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**BOARD OF FIRE COMMISSIONERS  
WOODBIDGE TOWNSHIP FIRE DISTRICT #9**

**NOTICE TO BIDDERS**

Scaled Bids to Re-Furbish Saulsbury Air Light Unit 9-3-4, will be received by the Board of Fire Commissioners, Woodbridge Township District #9 (Board) at their office, 1222 Green Street, Iselin, New Jersey 08830 until 10:30 a.m., prevailing time, on **Thursday February 2, 2023**, at which time and place the Bids will be publicly opened and read aloud. Bids received after said time shall be rejected. The Contract consists of furnishing and delivering a Re-Furbished Saulsbury Air Light Unit 9-3-4 firetruck to the Board of Fire Commissioners.

**INDIVIDUALS AND/OR FIRMS ARE TO SUBMIT ORIGINAL AND FOUR (4) COPIES OF THEIR RESPONSE AND SHALL TITLE THE BID AS INDICATED ABOVE; "REFURBISH SAULSBURY AIR LIGHT UNIT 9-3-4".**

All Bids shall be made on forms furnished and shall be enclosed in a sealed envelope marked on the outside with "REFURBISH SAULSBURY AIR LIGHT UNIT 9-3-4 RE-BID ENCLOSED," and directed to the attention of William F. Kenney, Jr. Business Administrator, Board of Fire Commissioners, Woodbridge Township District #9, 1222 Green Street, Iselin, New Jersey 08830. The name of the Bidder, Bidder's address and the date of the bid opening shall be plainly marked on the outside of the envelope.

Specifications and Bidding Documents may be examined at the office of the Board of Fire Commissioners, Woodbridge Township District #9, 1222 Green Street, Iselin, New Jersey 08830. Copies of the Specifications and Bidding Documents may be examined and obtained at the office of the Board of Fire Commissioners, Woodbridge Township District #9, 1222 Green Street, Iselin, New Jersey 08830 on or after Friday, December 9, 2022, between 9:00 a.m. and 5:00 p.m. The Board is not responsible for full or partial sets of Bidding Documents, including any addenda, obtained from any other source. Copies of the specifications and bidding documents are also available on the Board website at <http://www.Iselinfire.com>.

Bidders obtaining copies on the website or in person are responsible for monitoring the website for the issuance of any addenda.

A non-mandatory pre-bid inspection of the vehicle will be held on Thursday January 12, 2023 at 10:30 AM Woodbridge Township District #9, 1222 Green Street, Iselin, New Jersey 08830. Attendance is not mandatory, but is strongly encouraged. Failure to attend does not relieve the bidder of any obligations or requirements.

Each Bid must be accompanied by bid security in the amount of ten percent (10%) of the bid, not to exceed Twenty Thousand Dollars (\$20,000.00), and in the form of a certified check or cashier's check or a Bid Bond executed by the Bidder and a surety company authorized to do business in New Jersey made payable to the Board of Fire Commissioners, Woodbridge Township District #9.

Each Bidder must complete and sign all applicable documents which must accompany the Bid and submit these with the Bid in order to be eligible for consideration for award of a contract.

Bidders are required to comply with the requirements of N.J.S.A. 10:5-31, et seq. and N.J.A.C. 17:27, Affirmative Action; P.L. 1963, c. 150, Prevailing Wage Act; P.L. 1977, c. 33, Disclosure of Interests, and P. L. 2004, c.57, Business Registration Certificate, all as amended and supplemented.

The Board reserves the right to reject any or all bids, or to waive any informalities in any bid in such a manner as shall be in the judgment of the Board, deemed, in the best interest of the Board, all in conformity with the law.

Michael Rudy, Acting Chairman  
Board of Fire Commissioners,  
Woodbridge Fire District #9

William F. Kenney, Jr., Business Administrator

## SECTION 2 GENERAL CONDITIONS

### .1 BACKGROUND INFORMATION

The Board of Fire Commissioners, Woodbridge Township District #9 (herein after referred to as the "Board") is interested in procuring the services to re-furbish a Saulsbury Air-Light Unit 9-3-4. This contract consists of furnishing and delivering a re-furbished Saulsbury Air-Light Unit 9-3-4.

This Contract consists of the providing of the Services in accordance with the Detailed Specifications attached hereto and made a part hereof.

The specific responsibilities of the Successful Bidder for the Furnishing and Delivering of the re-furbished Saulsbury Air-Light Unit 9-3-4 are specified in detail in these General Conditions and Detailed Specifications.

### .2 RECEIPT AND OPENING OF BIDS

The Board invites bids on the forms attached hereto, all blanks of which must be appropriately filled in by typewriter or in ink. Bids will be received at the time and place set forth in the Advertisement for Bids at which time, they shall be publicly opened and read aloud.

### .3 SCOPE OF SERVICES

The Services under this Contract embraces the furnishing of all labor, materials, equipment, supplies, fuel, facilities, tools, transportation, supervision, administration, scheduling, and all things necessary to supply and deliver the refurbished fire truck detailed in the Detailed Specifications.

### .4 "BUY AMERICAN" PROVISION

Only manufactured and farm products of the United States, wherever available, shall be used in the Work required by the General Conditions and detailed specifications.

### .5 PREPARATION AND AWARD OF BID

All Bids must be submitted on the blank Bid forms annexed hereto. The Bid shall state the proposed price for each item of Services. Bidders shall not remove and submit Bid pages separate from the volume of the General Conditions and Detailed Specifications, but shall submit the Bid and all required other documents and submissions including but not limited to the Bid Forms; Certification of Shareholders, Officers or Partners; Debarred, Suspended and Disqualified Bidder Statement; Non-Collusion Affidavit; Disclosure of Investment Activities in Iran Form; and Business Registration Certificate as required by the General Conditions and Detailed Specifications.

A non-mandatory pre-bid inspection of the vehicle will be held on Thursday January 12, 2023 at 10:30 AM at Woodbridge Township District #9, 1222 Green Street, Iselin, New Jersey 08830. Attendance is not mandatory, but is strongly recommended. Failure to attend does not relieve the bidder of any obligations or requirements.

Each Bid shall be delivered to the Board in a sealed opaque envelope bearing on the outside the name of the Bidder, their address, and the name of the project for which the Bid is submitted. If forwarded by mail, the

envelope containing the Bid must be enclosed in another envelope. The outer mailing envelope shall be addressed to the **Board of Fire Commissioners, Woodbridge Township District #9 (Board) at their office, 1222 Green Street, Iselin, New Jersey 08830. ATTN: William F. Kenney, Jr. Business Administrator.** The outer mailing envelope shall be clearly marked "RE-FURBISH SAULSBURY AIR-LIGHT UNIT 9-3-4 RE-BID ENCLOSED." The Board shall not be responsible for nor be required to grant relief from non-delivery or late delivery of Bids forwarded by mail or third-party messenger/delivery services.

The Board reserves the right to waive any informalities, irregularity, omissions and/or errors or to reject any and all Bids. The Board reserves the right to accept and/or reject any Bid without necessary explanation to the proposing sources.

Any Bid received after the time and date specified shall not be considered. Award or rejection of all Bids shall be made within sixty (60) days of receipt of Bids, or any agreed upon extension of the time for award.

In evaluating Bids, discrepancies between words and figures will be resolved in favor of words. Discrepancies between unit prices and the total price extension will be resolved in favor of the unit price written in words or numbers and the extension adjusted accordingly. Discrepancies between the indicated sum of any column of figures and the correct sum thereof shall be resolved in favor of the correct sum.

If the Bid is made by an individual, his address shall be stated in and he shall sign the Proposal. If made by a partnership, joint venture or other similar business entity, its name and principal address shall be stated in and the Bid shall be signed by one or more of the general partners. If made by a corporation, its name and principal address shall be stated in the Bid and the Bid shall be signed by an authorized official of the corporation. A Bid submitted by any Bidder other than an individual shall be accompanied by appropriate evidence of the authority of the person signing the Bid to make a bid on behalf of and bind the Bidder.

Except where the Board exercises the right to reject any and all Bids, the Board will award a Contract to the lowest responsible, responsive Bidder for the Bid items who furnishes adequate security therefor and complies with all requirements of the General Conditions and Detailed Specifications, after investigations are made to determine the Bidder's responsibility and capability.

Any Bid may be withdrawn by properly notarized written request served to the Business Administrator, Board of Fire Commissioners, Woodbridge Township District #9, prior to the scheduled time for opening of Bids or authorized postponement thereof. No Bid may be withdrawn after the above scheduled time for opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. Award or rejection of all Bids shall be made within sixty (60) days of receipt of Bids, or any agreed upon extension of the time for award as permitted by law, and no Bidder may withdraw a bid during this period.

#### .6 SUBCONTRACTORS/ ASSIGNMENTS

The bidder shall not assign, transfer, convey, sublet or otherwise dispose of the Contract, or their rights, title or interest in or to the same or any part thereof, without previous consent, in writing of the Board, endorsed upon or attached to each copy of the Contract; and they shall not assign, by power of attorney or otherwise assign any of the monies to become due and payable under the Contract, unless by and with consent signified in like manner.

If the bidder shall, without such previous written consent, assign, transfer, convey, sublet or otherwise dispose of the Contract in whole or in part or of their right, title or interest therein or in any of the monies to become due under the Contract to any person, firm or corporation, the Contract may, at the option of the

Board, be revoked and annulled, and the Board thereupon relieved and discharged from any and all liability and obligations growing out of the same to the bidder and to their assignee or transferee; provided that nothing herein contained shall be construed to hinder, prevent or affect an assignment by the bidder for the benefit of their creditors made pursuant to the statutes of the State of New Jersey; and no right under this Contract or to any money to become due hereunder, shall be asserted against the Board in law or in equity by reason of any so-called assignment of this Contract or any part thereof, or any monies to become due hereunder unless authorized as aforesaid by the written consent of the Board.

#### .7 BID SECURITY

Each bid shall be accompanied by bid security in the amount of ten percent (10%) of the bid not to exceed the amount of Twenty Thousand Dollars (\$20,000.00) and in the form of a certified check or cashier's check or a Bid Bond executed by the Bidder and a surety company authorized to do business in New Jersey and made payable to Board of Fire Commissioners, Woodbridge Township District #9. Bid security shall be returned to all except the apparent three lowest responsible, responsive Bidders within ten (10) days, excluding Sundays and Holidays, after opening of bids and the bid security of the remaining unsuccessful Bidders will be returned within three (3) days, excluding Sundays and Holidays, after execution of the Contract by the Board and the successful Bidder

All bid bonds shall name the Board of Fire Commissioners, Woodbridge Township District #9 as obligee and shall be issued by a surety authorized and licensed to transact business in the State of New Jersey by the New Jersey Department of Insurance. Each bid bond shall name and be signed by the Bidder as principal and shall be accompanied by a valid and effectively dated form of power-of-attorney evidencing the authority of the attorney-in-fact signing the bid bond on behalf of the surety to bind the surety.

#### .8 QUALIFICATIONS

The Board may make such investigations as it deems necessary to determine the ability of the Bidder to perform the Work and the Bidder shall furnish to the Board all information and data for this purpose as the Board may request. The Board reserves the right to reject any Bid if the evidence submitted by or investigation of such Bidder fails to satisfy the Board that such Bidder is properly qualified as the lowest responsive, responsible bidder to carry out the obligations of the Contract and to complete the Work contemplated herein.

#### .9 LIQUIDATED DAMAGES FOR FAILURE TO ENTER CONTRACT

The successful Bidder, upon his failure or refusal to execute and deliver the Contract and any other documents or submissions required by the General Conditions and Detailed Specifications within fifteen (15) calendar days after he has received notice of the acceptance of his bid, shall forfeit to the Board, as liquidated damages and not as a penalty for such failure or refusal, the security deposited with his bid. The forfeiture of bid security shall not prevent the Board from recovering from the Bidder actual damages sustained beyond the limit of the bid security.

#### .10 OBLIGATION OF BIDDER

At the time of the opening of Bids, each bidder will be presumed to have read and to be thoroughly familiar with the General Conditions and Detailed Specifications (including all addenda) and to be fully informed and satisfied as to the conditions existing, the character and requirements of the proposed Services, and the difficulties attendant upon its execution. The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect to their bid.

Each Bidder must inform themselves fully of the conditions relating to the production and delivery of Services and the employment of labor therefor. Failure to do so will not relieve a successful Bidder of their obligation to furnish all equipment, material and labor necessary to carry out the provisions of this Contract. Insofar as possible, the successful Bidder, in carrying out the Services, must employ such methods or means as will not cause any interruption of or interference with the Services or any activities of the Board or any Contractor of the Board.

#### .11 POWER OF ATTORNEY

Attorneys-in-fact who sign bid bonds must file with each bond a certified and dated copy of his or her power-of-attorney.

#### .12 ORAL INSTRUCTIONS

Neither the Board nor their authorized representatives shall be responsible in any way for oral answers unconfirmed in writing, to any inquiries regarding the intent or meaning of the details, or the specifications, or for any oral instruction by themselves, their employees or other.

Questions to the Bid Specifications should be directed in writing to William F. Kenney, Jr. Business Administrator of the Board of Fire Commissioners, Woodbridge Township District #9 at [Bdofd9@comcast.net](mailto:Bdofd9@comcast.net). Questions should be submitted no later than seven (7) days, excluding Saturday, Sunday and Holidays prior to the date fixed for the bid opening. The Board shall not be obligated to respond to any questions.

#### .13 ADDENDUM AND INTERPRETATIONS

No interpretation of the meaning of the General Conditions and Detailed Specifications or other pre-bid documents will be made to any Bidder orally. Every request for such an interpretation should be in writing, addressed to the Business Administrator, Board of Fire Commissioners, Woodbridge Township District #9. To be given consideration, such requests must be received at least seven (7) days, Saturday, Sunday and Holidays excepted, prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the General Conditions and Detailed Specifications. If issued, any addendum shall be posted to the website no later than seven (7) days, Saturdays, Sundays, and Holidays excepted, prior to the date for the opening of bids. **Bidders obtaining copies of the bid from the website are responsible for monitoring the website for the issuance of any addenda.**

When issuing addenda the Board shall provide required notice prior to the official receipt of bids to any person who has submitted a bid or who has received a bid package pursuant to N.J.S.A. 40A:11-23(c).

The failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under their Bid as submitted. All addenda so issued shall become part of the General Conditions and Detailed Specifications. The Board shall not be obligated to respond to any request for an interpretation of the General Conditions and Detailed Specifications. The Board shall not be responsible for any oral or other interpretation of the General Conditions and Detailed Specifications, except as issued in accordance with this section.

#### .14 APPLICABLE LAWS

The bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances and rules and regulations of all authorities having jurisdiction over the Services shall apply to the Contract

throughout the term, and they shall be deemed to be included in the Contract the same as though herein written out in full.

#### .15 PARTNERSHIP AND STOCKHOLDERS DISCLOSURE

In accordance with P.L. 1977, c.33 and on the form included in the General Conditions and Detailed Specifications, each bidder shall set forth the name and addresses of all stockholders in the bidder corporation who own ten percent (10%) or more of its stock of any class of all members of the bidder's limited liability company or of all partners in the bidder's partnership or limited liability partnership who own a ten percent (10%) or greater interest therein, as the case may be. If one or more such stockholders, members or partners is itself a corporation, limited liability company, limited liability partnership or partnership, then the names and addresses of the stockholders or members owning ten percent (10%) or more of the stock of any class of that corporation, the names and addresses of the members owning ten percent (10%) or more interest, or of the partners or members owning ten percent (10%) or greater interests in that partnership or limited liability partnership, as the case may be, shall also be listed. The disclosure shall continue until all names and addresses of every individual stockholder, member or partner exceeding the ten percent (10%) ownership criteria has been listed. Each bidder shall execute the disclosure form in the manner required by the General Conditions and Detailed Specifications.

#### .16 DEBARRED, SUSPENDED AND DISQUALIFIED BIDDER PROVISION

The bidder shall submit with their Bid a sworn statement, in the form contained in the General Conditions and Detailed Specifications, signed by an officer or general partner of the bidder indicating whether or not the bidder is at the time of the Bid included on the New Jersey State Treasurer's List of Debarred, Suspended, or Disqualified Bidders. The signature on the form shall be notarized. The bidder will immediately notify the Board whenever it appears that the bidder is on the State Treasurer's list.

#### .17 MECHANIC'S LIEN

The successful Bidder shall not permit any mechanic's liens or other encumbrances to be filed with respect to the Work or any labor, materials, supplies, or other items used in performing the Work or which are intended to or become part of the completed Work. If such a mechanic's lien or other encumbrance is filed, within forty-five (45) days of the filing thereof, the successful Bidder shall discharge such mechanic's lien or other encumbrance or shall post such security in sufficient amount and appropriate form with the proper authorities as may be necessary to satisfy such mechanic's lien or other encumbrance. In addition, and not by way of limitation to the Board's right to insist upon and obtain compliance with this Article by the successful Bidder, the Board may employ other remedies set forth in the General Conditions and Detailed Specifications upon the breach of this Article.

#### .18 NON-COLLUSION AFFIDAVIT

Each bidder shall submit with their Bid a properly executed Non-Collusion Affidavit in the form contained in the General Conditions and Detailed Specifications. The signature on the form shall be notarized.

#### .19 AFFIRMATIVE ACTION REQUIREMENTS

Each bidder is required to comply with the provisions of New Jersey Department of Treasury, Affirmative Action Requirements N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27, contained therein.



#### .20 AWARD OF BID

The Board reserves the right to reject any or all bids or to waive any material defect or informality in any Bid and to award separate contracts or a lump sum contract (as applicable) if deemed to be in the best interest of the Board to do so. In case of tie bids, the Board shall have the authority to award orders or contracts to the bidder or bidders selected by the Board in its sole discretion.

#### .21 GUARANTEE

The Bidder guarantees that the parts and equipment shall be of first quality throughout and will be in compliance in all respects to the standards for such part and equipment regularly sold by the manufacturer in the lines ordered. All items to be guaranteed for one year after date of acceptance or if manufacturer prescribes a guarantee of greater duration, the latter time period of the guarantee will control.

#### .22 GOVERNING LAW

New Jersey law will govern the interpretation of the General Conditions and Detailed Specifications. Bidder consents to venue and jurisdiction in the State of New Jersey.

#### .23 PARTIAL INVALIDITY

In the event any provision of the General Conditions and Detailed Specifications shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

#### .24 "OR EQUAL" CLAUSE

Specific reference in the Detailed Specifications to any article, device, product, material, fixture, form or type of construction by name, make or catalog number, with or without the words "or equal" shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition, and the Bidder in such cases, may at his option use any article, device, product, material, fixture, form or type of construction, which in the judgment of the Board, expressed in writing by the Board, is equal to that named. In all cases, new material shall be used.

Prospective Bidders must insert the manufacturer's name and model name and number they are submitting quotations on in the appropriate place provided for on the bid sheet. If bidding on "or equal", Bidder shall include literature and specification sheets with the bid. The determination of equivalency shall be solely that of the Board.

#### .24 PAYMENT

Payments shall be made upon the approval of vouchers submitted by the successful Bidder in accordance with the requirements of the Board and subject to the Board's customary practices.

#### .25 STATE SALES TAX EXEMPTION

The Board is an organization exempt from the New Jersey State Sales and Use Tax Act, N.J.S.A. 54:32B-1 et seq., in accordance with Section 9 of the Act, N.J.S.A. 54:32B-9(a)(l).

#### .26 PATENTS

The Bidder shall hold and save the Board, its members, officers, agents, servants and employees, harmless from liability of any nature or kind for or on account of the use of any copyrighted or uncopyrighted

composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of the Contract.

#### .27 ACCIDENTS, INJURIES, DAMAGES

If it becomes necessary for the Contractor, either as principal or by agent or employee, to enter upon the premises or property of the Board in order to construct, erect, inspect, make delivery or remove property hereunder, the Contractor hereby covenants and agrees to take, use, provide and make all proper, necessary and sufficient precaution, safeguards and protections against the occurrence or happening of any accidents, injuries, damages or hurt to any person or property during the provision of the Services herein covered, and to be responsible for, and to indemnify and hold harmless the Board from the payment of all sums of money by reason of all or any such accidents, injuries, damages or hurt that may happen or occur upon or about such Services and all fines, penalties and loss incurred for or by reason of the violation of any municipal ordinance, regulation of the laws of the State of New Jersey and of the United States while the Services are being provided.

Contractor will carry insurance to indemnify the Board against any claim for loss, damage, or injury to property or persons arising out of the performance of the Contractor or of their employees and agents or the services covered by the Contract and the use, misuse or failure of any equipment used by the Contractor or their employees or agents and shall provide certificates of such insurance to the Board.

#### .28 PROTECTION OF ITEMS AND PROPERTY

The successful Bidder shall continuously maintain adequate protection for all of its items and the Board's property from injury, damage or loss arising in connection with the Contract.

#### .29 BIDDER'S INSURANCE

The bidder shall procure and maintain:

- A. Workmen's Compensation and Employer's Liability Insurance shall be maintained in force during the life of this Contract by the bidder covering all employees engaged in performance of this Contract in accordance with the applicable statute.
- B. Comprehensive General Liability Insurance with a combined single limit of not less than \$1,000,000 per occurrence for bodily injury and property damage shall be maintained in force during the life of the Contract by the bidder. The policy shall be a comprehensive form general liability policy and shall include products/completed operation, independent Bidders, contractual and broad form property damage liability coverage.
- C. Comprehensive Automobile Liability Insurance covering bidder for claims arising from owned, hired or non-owned vehicles with a combined single limit of not less than \$1,000,000 per occurrence for bodily injury and property shall be maintained in force during the life of this Contract by the bidder.
- D. Certificates of the above coverages naming the Board as additional insured, except workmen's compensation policies, shall be submitted to the Board. Coverage shall be with acceptable insurance companies only. All certificates shall contain a thirty (30) day notice of cancellation or change in coverage.

#### .30 LABOR

The Bidder shall and will be required to conform to the Labor Laws of the State of New Jersey and the various acts Amendatory and Supplemental thereto, and in accordance with the New Jersey Department of

Labor and Industry Prevailing Wage Rate Determination. The rate of wages for all laborers employed by the Bidder shall not be less than the prevailing rate so established for Services to be performed under the terms of the Contract and a copy of the Determination of the Wage and Hour Bureau or other documents specifying the prevailing wages is considered as incorporated by reference as a part of the Contract.

### .31 DEFAULT OF CONTRACTOR

The Board shall have the right in case of the failure, neglect or the refusal of the Bidder, to terminate the Contract at the expiration of three (3) days written notice to the Contractor served at its last known address according to the records of the Board. At the expiration of said notice, the Board may, at its option, proceed to enter into a contract for the performance of the Services, or perform the Services itself, provided, however, that the Contractor shall be responsible for the cost of providing the Services in excess of the Bidder's Bid. If the Board shall declare the Contract in default, in the whole or in any part, such declaration of default shall in no way relieve or affect the liability of the Contractor.

In addition to the foregoing and not in limitation thereof, in the event the Board is not satisfied with the Services being provided by Contractor as determined by the Board in the Board's sole discretion, the Board may terminate this contract on thirty (30) days notice to the Contractor.

### .32 RIGHT TO KNOW

All products supplied to the Board under any Contract shall comply with the New Jersey and Community Right to Know Act (N.J.A.C. 8:59) by providing a Material Safety Data Sheet for each product and, further complying with the uniform labeling requirement on each product container and package before delivery. This is an important and irrevocable part of any resulting Contract.

### .33 BUSINESS REGISTRATION CERTIFICATE

**In accordance with Chapter 57, P.L. 2004, Contractors are required to be registered with the New Jersey Department of the Treasury at the time of submission of its Bid. Bidders are required to submit a copy of the certificate prior to contract award but may submit same with the Bid. The business certificate issued by the New Jersey Department of the Treasury is the only acceptable form of submission.**

### .34 METHOD OF AWARD

**THE BOARD RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS, AND WAIVE ANY AND ALL INFORMALITIES, AND THE RIGHT TO DISREGARD ALL NONCONFORMING OR CONDITIONAL BIDS OR COUNTERPROPOSALS.**

The method of award shall be at the discretion of the Board based on the requirements set forth in the Detailed Specification to the lowest responsible bidder.

In evaluating bids, the Board shall consider the qualifications of the Bidders, whether or not the bids comply with the prescribed requirements, and alternates and unit prices if requested in the Bid Forms. The Board may consider the qualifications and experience of subcontractors and other persons and organizations, including these who are to furnish the principal items of material or equipment proposed for the portions of the work as to which the identity of subcontractors and other persons and organizations must be submitted as specified in the Supplementary Conditions or Specifications. The Board may conduct such investigations as it deems necessary to establish the responsibility, qualifications, and financial ability of the Bidders,

subcontractors and other persons and organizations to do the work in accordance with the contract documents to the Board's satisfaction within the prescribed time. The Board reserves the right to reject the bid of any Bidder who does not pass any such evaluation to the Board's satisfaction.

If the contract is to be awarded, the Board will give the apparent successful Bidder a Notice of Award within 60 days after the day of the bid opening. Exception to this schedule would be in accordance with N.J.S.A 40A:11-24 which provides that "any bidders who consent thereto may, at the request of the contracting unit, have their bids held for consideration for such longer period as may be agreed". All prospective bidders are advised of this schedule since all proposals must be firm when bid and must remain so for 60 days or such longer period as the Board and the bidders may agree.

Simultaneously, with delivery of the executed counterparts of the Agreement to the Board, contractor shall deliver to the Board the required contract security.

#### .35 CONTRACT PERIOD

The Contract shall have a term of twelve (12) months commencing on the date of contract execution with the Board and terminating upon delivery and acceptance of the Salsbury Air Light vehicle unless earlier terminated by the Board in accordance with the terms contained herein.

#### .36 RECORDS RETENTION

Contractor shall maintain all documentation related to products, transactions or services under this contract for a period of five (5) years from the date of final payment. Such records shall be available to the New Jersey Office of the State Comptroller upon request.

### SECTION 3 AFFIRMATIVE ACTION REQUIREMENTS

During the performance of this contract, the Bidder agrees as follows:

- a. The Contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the Bidder will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this non-discrimination clause;
- b. The contractor or subcontractor, where applicable, will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex;
- c. The contractor or subcontractor will send to each labor union with which it has a collective bargaining agreement, a notice, to be provided by the Public Agency Contracting Officer advising the labor union of the contractor's commitments under this chapter and shall post copies of the notice in conspicuous places available to employees and applicants for employment;
- d. The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.
- e. The contractor or subcontractor agrees to make good faith efforts to meet targeted County employment goals established in accordance with N.J.A.C. 17:27-5.2.
- f. The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies, including, but not limited to, employment agencies, placement bureaus, colleges, universities, and labor unions, that it does not discriminate on the basis of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices;
- g. The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions;

h. In conforming with the targeted employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor shall submit to the public agency after notification of award, but prior to execution of a goods and services contract, one of the following three documents:

- a. Letter of Federal Affirmative Action Plan Approval;
- b. Certificate of Employee Information Report; or
- c. Employee Information Report Form AA 302 (electronically provided by the Division and distributed to the public agency through the Division's website at [www.state.nj.us/treasury/contract\\_compliance](http://www.state.nj.us/treasury/contract_compliance) ).

The contractor and subcontractors shall furnish such reports or other documents to the Division of Public Contracts Equal Employment Opportunities Compliance as may be requested by the office from time to time in order to carry out the purposes of these regulations and the Board shall furnish such information as may be requested by the Division of Public Contracts Equal Employment Opportunity Compliance for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code at N.J.A.C. 17:27.

Full Name (Print):		Title:	
Signature:		Date:	

**SECTION 4 BID PROPOSAL SHEET**  
**Refurbish Saulsbury Air-Light Unit 9-3-4**

**PLEASE SIGN THE BOTTOM PORTION OF THIS PAGE AND ATTACH TO THE  
“BID FORM PAGE- PRICING” IN SECTION 7 OF THE DETAILED SPECIFICATIONS.**

**BID SHEET(S) WILL NOT BE ACCEPTED UNLESS SIGNED BY THE OWNER OR  
AUTHORIZED CORPORATE OFFICER.**

**Bidder's Name:**

**Address:**

**Telephone No.** \_\_\_\_\_ **Fax Number:** \_\_\_\_\_

**Authorized Signature:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**SECTION 5 SUPPLEMENTAL BID FORMS**

- o BID DOCUMENT SUBMISSION CHECKLIST – **FORM 5A**
- o OWNERSHIP DISCLOSURE FORM -- **(MANDATORY) -- FORM 5B**
- o DEBARRED, SUSPENDED AND DISQUALIFIED BIDDER STATEMENT **FORM 5C**
- o AFFIDAVIT OF NON-COLLUSION – **FORM 5D**
- o RESOLUTION OF AUTHORIZATION IF BIDDER IS A CORP. - **FORM 5E**
- o CONTRACTOR BUSINESS REGISTRATION CERTIFICATE -**FORM 5F**
- o DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN – **FORM 5G**
- o ADA DISCLOSURE FORM -- **FORM 5H**
- o AFFIRMATIVE ACTION CERTIFICATION -- **FORM 5I**
- o MANDATORY EEO LANGUAGE – **FORM 5J**
- o BID SECURITY **(MANDATORY) --FORM 5K**
- o ACKNOWLEDGEMENT OF ADDENDA-- **(MANDATORY) FORM 5L**
- o SAMPLE CONTRACT – **FORM 5M**

**ALL SUPPLEMENTAL BID FORMS MUST BE COMPLETED AND ACCOMPANY BID AT THE TIME OF BID SUBMISSION. FAILURE TO INCLUDE THE ITEMS MARKED MANDATORY MAY BE AUTOMATIC CAUSE FOR REJECTION.**



**BID DOCUMENT SUBMISSION CHECKLIST**

**FORM 5A**

**A. Failure to submit the following documents is a mandatory cause for the bid to be rejected. (N.J.S.A. 40A:11-23.2)**

<u>Required with submission of Bid</u>	<u>Initial each item submitted with Bid (Bidder's initials)</u>
X Bid Guarantee pursuant to NJSA 40A:11-23.21 (Form 5K)	_____
X Statement of Ownership Disclosure Form (Form 5B)	_____
X Bidders acknowledgement of receipt of any notice(s) or revision(s) or addenda to an advertisement, specification or bid document (Form 5L)	_____
X Certification of Non-debarment (Form 5C)	_____

**B. Failure to submit the following documents may be cause for the bid to be rejected. (N.J.S.A. 40A:11-23.1b)**

X Bid Sheet Form (Section 4 and Bid Form Page - Pricing)	_____
X Affirmative Action Certification (Form 5I)	_____
X American with Disabilities Act Disclosure form (Form 5H)	_____
X Disclosure of Investment Activities in Iran (Form 5G)	_____
X Submission of Non-Collusion Affidavit (Form 5D)	_____
X Business Registration Certificate of Bidder (Form 5F)	_____

**C. SIGNATURE: The undersigned hereby acknowledges and has submitted the above listed requirements.**

Name of Bidder/Company: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name and Title of Signer: (PRINT) \_\_\_\_\_

**FORM 5B**

**OWNERSHIP DISCLOSURE FORM**

**STATEMENT OF OWNERSHIP DISCLOSURE FORM**

N.J.S.A. 52:25-24.2 (P.L. 1977 c.33 as amended by P.L. 2016, c.43)

**This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.**

**Name of Organization:** \_\_\_\_\_

**Organization Address:** \_\_\_\_\_

**Part I** Check the box that represents the type of business organization:

- Sole Proprietorship (skip Parts II and III, execute certification in Part IV)
- Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)
- For-Profit Corporation (any type)       Limited Liability Company (LLC)
- Partnership       Limited Partnership
- Limited Liability Partnership (LLP)
- Other (be specific): \_\_\_\_\_

**Part II**

- The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. **(COMPLETE THE LIST BELOW IN THIS SECTION)**
- OR**
- No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. **(SKIP TO PART IV)**

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Home Address (for Individuals) or Business Address


**Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II**

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed.**

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II other than for any publicly traded parent entities referenced above. The disclosure shall be continued until names and addresses of every noncorporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Home Address (for Individuals) or Business Address

**Part IV Certification**

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the *Board of Fire Commissioners, Woodbridge Township District #9* is relying on the information contained herein and that I am under a continuing obligation from the

date of this certification through the completion of any contracts with **Board of Fire Commissioners, Woodbridge Township District #9** to notify the **Board of Fire Commissioners, Woodbridge Township District #9** in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the **Board of Fire Commissioners, Woodbridge Township District #9** to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

**FORM 5C**

**DEBARRED, SUSPENDED AND DISQUALIFIED BIDDER STATEMENT**

I, \_\_\_\_\_ (Name of Officer), hereby solemnly swear that  
\_\_\_\_\_ (Name of Bidder) \_\_\_\_\_ (Insert "is" or "is not"), at the  
time of the Bid, included on the New Jersey State Treasurer's List of Debarred, Suspended, or Disqualified  
Bidders. Furthermore, I agree to immediately notify Board of Fire Commissioners, Woodbridge  
Township District #9 wherever it appears that \_\_\_\_\_ (Name of Bidder) is on  
the aforementioned New Jersey State Treasurer's List.

\_\_\_\_\_  
Name of Bidder

By \_\_\_\_\_  
Name and Title

\_\_\_\_\_

Subscribed and Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_

Notary Public of \_\_\_\_\_

Commission Expires \_\_\_\_\_

**FORM 5D**

**NON-COLLUSION AFFIDAVIT FURNISH AND DELIVER RE-FURBISHED**

**SAULSBURY AIR-LIGHT UNIT 9-3-4**

STATE OF \_\_\_\_\_ :

ss:

COUNTY OF \_\_\_\_\_ :

I, \_\_\_\_\_, of the Municipality of \_\_\_\_\_, in the County of \_\_\_\_\_, State of \_\_\_\_\_, of full age, being duly sworn according to law on my oath depose and say that:

I am \_\_\_\_\_ of the firm of \_\_\_\_\_, the Bidder making the Bid for the above named project, and that I executed the said Bid with full authority to do so; that said Bidder has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named Project; and that all statements contained in said Bid and in this Affidavit are true, correct, and made with full knowledge that the Owner relied upon the truth of the statements contained in said Bid and in the statements contained in the Affidavit in awarding the Contract

for the said Bid.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bonafide employees or bonafide established commercial or selling agencies

maintained by \_\_\_\_\_.

Name of Bidder

Bidder \_\_\_\_\_

By \_\_\_\_\_

Subscribed and Sworn \_\_\_\_\_

to before me this \_\_\_\_\_ (Type or print name of affiant)

\_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

Notary Public of \_\_\_\_\_

Commission Expires \_\_\_\_\_

**FORM 5E**

**RESOLUTION OF AUTHORIZATION IF BIDDER IS A CORPORATION**

RESOLVED, that the following named officers:

(1)

Be and hereby are authorized and empowered to sign and submit to the Board the attached Bid and further that said officers are authorized to execute the Contract or any other agreement, bond, or statement necessary for the fulfillment of the obligations incurred by the acceptance of the Board of the Bid.

I hereby certify that the above constitutes a true copy of a Resolution passed and approved by the Board of Directors at a meeting held on \_\_\_\_\_ (2 - Insert Date).

Affix Seal: (3)

(4) \_\_\_\_\_

(Secretary)

**IMPORTANT: ENTRIES MUST BE MADE AT THE FOUR (4) NUMBERED PLACES.**

**FORM 5F**

**BUSINESS REGISTRATION CERTIFICATE**

Pursuant to N.J.S.A. 52:32-44, the Board is prohibited from entering into a contract with an entity unless the bidder/proposer/contractor, and each subcontractor that is required by law to be named in a bid/proposal/contract has a valid Business Registration Certificate on file with the Division of Revenue and Enterprise Services within the Department of the Treasury.

Prior to contract award or authorization, the contractor shall provide the Board with its proof of business registration and that of any named subcontractor(s).

Subcontractors named in a bid or other proposal shall provide proof of business registration to the bidder, who in turn, shall provide it to the Board prior to the time a contract, purchase order, or other contracting document is awarded or authorized.

During the course of contract performance:

- (1) the contractor shall not enter into a contract with a subcontractor unless the subcontractor first provides the contractor with a valid proof of business registration.
- (2) the contractor shall maintain and submit to the Board a list of subcontractors and their addresses that may be updated from time to time.
- (3) The contractor and any subcontractor providing goods or performing services under the contract, and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of the Treasury, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq) on all sales of tangible personal property delivered into the State. Any questions in this regard can be directed to the Division of Taxation at (609) 292-6400. Form NJ-REG can be filed online at <http://www.state.nj.us/treasury/revenue/busregcert.shtml>.

Before final payment is made under the contract, the contractor shall submit to the Board a complete and accurate list of all subcontractors used and their addresses.

Pursuant to N.J.S.A. 54:49-4.1, a business organization that fails to provide a copy of a business registration as required, or that provides false business registration information, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000, for each proof of business registration not properly under a contract with a contracting agency.

**Emergency Purchases or Contracts**

For purchases of an emergent nature, the contractor shall provide its Business Registration Certificate within two weeks from the date of purchase or execution of the contract or prior to payment for goods or services, whichever is earlier.



**FORM 5G**

**DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN FORM**

**REFURBISH SAULSBURY AIR LIGHT UNIT 9-3-4**

**VENDOR/BIDDER NAME:**

\_\_\_\_\_

Pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4) any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must certify that neither the person nor entity, nor any of its parents, subsidiaries, or affiliates, is identified on the New Jersey Department of the Treasury's Chapter 25 List as a person or entity engaged in investment activities in Iran. The Chapter 25 list is found on the Division's website at <https://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>. Vendors/Bidders must review this list prior to completing the below certification. If the Director of the Division of Purchase and Property finds a person or entity to be in violation of the law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

**CHECK THE APPROPRIATE BOX**

I certify, pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4), that neither the Vendor/Bidder listed above nor any of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List of entities determined to be engaged in prohibited activities in Iran.

**OR**

I am unable to certify as above because the Vendor/Bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List. I will provide a detailed, accurate and precise description of the activities of the Vendor/Bidder, or one of its parents, subsidiaries or affiliates, has engaged in regarding investment activities in Iran by completing the information requested below.

**Entity Engaged in Investment Activities** \_\_\_\_\_ **Relationship** \_\_\_\_\_ **to** \_\_\_\_\_ **Vendor/Bidder**

**Description of Activities**

**Duration of Engagement**

**Anticipated Cessation Date**

*Attach Additional Sheets If Necessary.*

**CERTIFICATION**

I, the undersigned, certify that I am authorized to execute this certification on behalf of the Vendor/Bidder, that the foregoing information and any attachments hereto, to the best of my knowledge are true and complete. I acknowledge that the State of New Jersey is relying on the information contained herein, and that the Vendor/Bidder is under a continuing obligation from the date of this certification through the completion of any contract(s) with the State to notify the State in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I will be subject to criminal prosecution under the law, and it will constitute a material breach of my agreement(s) with the State, permitting the State to declare any contract(s) resulting from this certification void and unenforceable.

Signature

Date

Print Name and Title

**Americans With Disabilities Act Disclosure**  
**FORM 5H**

\_\_\_\_\_, the Bidder, does hereby agree that the provisions of Title II of the Americans with Disabilities Act of 1990 ("Act") (U.S.C. §12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereto, are made a part of these Request for Bids - REFURBISH SAULSBURY AIR LIGHT UNIT 9-3-4

Witness:

Contractor: \_\_\_\_\_

\_\_\_\_\_  
Name

By: \_\_\_\_\_  
Name, Title

Notary:

Signed and sworn to before me on  
\_\_\_\_\_, 20\_\_.

\_\_\_\_\_

Notary Public, State of \_\_\_\_\_

**AFFIRMATIVE ACTION CERTIFICATION**  
**FORM 5I**

If awarded a contract, all procurement and service contractors will be required to comply with the requirements of N.J.S.A. 10:5-31 et seq. (P.L.1975,C.127) N.J.A.C. 17:27. Within seven (7) days after receipt of the notification of intent to award the contract or receipt of the contract, whichever is sooner, the contractor should present one of the following to the Purchasing Agent:

1. A photocopy of a valid letter from the U.S. Department of Labor that the contractor has an existing federally-approved or sanctioned Affirmative Action Plan (good for one year from the date of letter).  
OR
2. A photocopy of their approved Certificate of Employee Information Report.  
OR
3. An Affirmative Action Employee Information Report (Form AA302)  
OR
4. All successful construction contractors must submit within three days of the signing of the contract an Initial Project Manning Report (AA201) for any contract award that meets or exceeds the Public Agency bidding threshold (available upon request).

NO FIRM MAY BE ISSUED A CONTRACT UNLESS IT COMPLIES WITH THE AFFIRMATIVE ACTION REGULATIONS OF N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127) N.J.A.C. 17:27.

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The following questions must be answered by all bidders:

1. Do you have a federally-approved or sanctioned Affirmative Action Program?

YES \_\_\_\_\_ NO \_\_\_\_\_

If yes, please submit a copy of such approval.

2. Do you have a State Certificate of Employee Information Report Approval?

YES \_\_\_\_\_ NO \_\_\_\_\_

If yes, please submit a copy of such certificate.

The undersigned contractor certifies that he is aware of the commitment to comply with the requirements of N.J.S.A. 10:5-31 et seq (P.L.1975,c.127) and agrees to furnish the required documentation pursuant to the law.

COMPANY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

**Note: a contractor's bid must be rejected as non-responsive if a contractor fails to comply with Requirements of N.J.S.A. 10:5-31 et seq., within the time frame.**

**FORM 5J**  
**MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE**  
**N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127) N.J.A.C. 17:27 et seq.**

**GOODS, GENERAL SERVICES, AND PROFESSIONAL SERVICES CONTRACTS**

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, up-grading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union of the contractor's commitments under this chapter and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to make good faith efforts to meet targeted county employment goals established in accordance with N.J.A.C. 17:27-5.2.

The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, and labor unions, that it does not discriminate on the basis of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

In conforming with the targeted employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

Letter of Federal Affirmative Action Plan Approval;

Certificate of Employee Information Report; or

Employee Information Report Form AA-302 (electronically provided by the Division and distributed to the public agency through the Division's website at: [http://www.state.nj.us/treasury/contract\\_compliance/](http://www.state.nj.us/treasury/contract_compliance/)).

The contractor and its subcontractors shall furnish such reports or other documents to the Division of Purchase & Property, CCAU, EEO Monitoring Program as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Purchase & Property, CCAU, EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

---

Signature

Date

Name and Title of Signer (Please Print or Type)

*IMPORTANT: This form must be completed by Bidder.*

**FORM 5K**  
**BID SECURITY**

This proposal is accompanied by bid security in accordance with the conditions stated in the Invitation to Bid.

The bid security in the form of:

- A. Surety Bid Bond \_\_\_\_\_
- B. Certified/Treasurer's Check \_\_\_\_\_
- C. Cashier's Check \_\_\_\_\_

The amount of \_\_\_\_\_ (\$ \_\_\_\_\_) payable to the Board

The Bidder hereby agrees that if this proposal shall be accepted by the Board, and the Bidder shall fail to execute and deliver the contract and the required Performance Bond or other required documents in accordance with the requirements of this proposal and other sections of the contract documents within the time specified, then the Bidder shall be deemed to have abandoned the contract and thereupon the proposal and acceptance shall be null and void and the security accompanying the proposal shall be forfeited to, and retained by, the Board, as liquidated damages for such failure or neglect, and to indemnify the Board for any loss which may be sustained by failure of the Bidder to execute the contract and furnish documents as aforesaid. Nothing in the specifications and contract documents shall prevent the Board from recovering actual damages over and above the sum of the forfeited bid security.

In compliance with the laws of the State the Bidder is:

An Individual \_\_\_\_\_

A Partnership \_\_\_\_\_

of \_\_\_\_\_ having principal offices at

---

**CONSENT OF SURETY**

In consideration of the premises, and of one dollar to it in hand paid by the Bidder, the receipt whereof is hereby acknowledged, the undersigned consents and agrees that if the contract, for which the preceding estimate and proposal is made, be awarded to the corporation, person or persons making the same, it will become bound as surety and guarantor for its faithful performance, and will execute it as party of the third part thereto when required to do so by the Board, and if said corporation, person or persons shall omit or refuse to execute said contract if so awarded, it will pay, on demand, to the said Board any difference(s) between the sum bid by said corporation, person or persons and the sum which the said Board may be obliged to pay the corporation, person or persons to whom the contract may be awarded; the amount in each case to be determined by the bids for said contract.

In witness whereof, said surety has set its seal and caused these presents to be signed by its duly authorized officers, this

\_\_\_\_\_ Day of \_\_\_\_\_ 2022.

ATTEST:

\_\_\_\_\_

BY \_\_\_\_\_

\_\_\_\_\_ (SEAL)

Surety

ATTEST:

\_\_\_\_\_

BY \_\_\_\_\_

Title

**FORM 5L**

**ACKNOWLEDGMENT OF RECEIPT OF ANY ADDENDA TO BID DOCUMENTS**  
**(THIS FORM MUST BE SUBMITTED WITH THE BID)**

Pursuant to N.J.S.A. 40A:11-23. 1a., the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local units record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid may be subject for rejection of the bid.

**The following notices, revisions or addenda to the advertisement or bid documents were received:**

Description: \_\_\_\_\_  
Date Received: \_\_\_\_\_ Initial \_\_\_\_\_

Description: \_\_\_\_\_  
Date Received: \_\_\_\_\_ Initial \_\_\_\_\_

Description: \_\_\_\_\_  
Date Received: \_\_\_\_\_ Initial \_\_\_\_\_

Description: \_\_\_\_\_  
Date Received: \_\_\_\_\_ Initial \_\_\_\_\_

Description: \_\_\_\_\_  
Date Received: \_\_\_\_\_ Initial \_\_\_\_\_

**OR**

***I have received no notices, revisions or addenda to the advertisement or bid documents. Initial \_\_\_\_\_***

**Sign below in either case and return with Bid.**

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Authorized Signature                      Date



**FORM 5M**  
**SAMPLE CONTRACT**

This Agreement, made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_,

by and between the Board of Fire Commissioners, Woodbridge Township District #9 (Board), 1222 Green Street, Iselin, New Jersey 08830 herein called "OWNER," and

\_\_\_\_\_  
(a corporation - a partnership - an individual doing business as)

\_\_\_\_\_  
(address)

County of \_\_\_\_\_, State of \_\_\_\_\_ hereinafter called  
"CONTRACTOR".

**WITNESSETH:** That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Owner, the Contractor hereby agrees with the Owner to commence and complete the Services described as follows:

Re-furbish Saulsbury Air-Light Unit 9-3-4 fire truck

Herein after called the Project, for the total Not to Exceed price of

(\$ \_\_\_\_\_) Dollars under the terms as

stated in the General Conditions and Detailed Specifications which are incorporated herein by reference; and the Contractor's own proper cost and expense to furnish all materials, supplies, machinery, equipment, tools, superintendents, labor, insurance, and other accessories and services necessary to complete the Services as described in the General Conditions and Detailed Specifications, all of which are made a part hereof and collectively evidence and constitute the Contract.

The Contractor hereby agrees to commence Services under this Contract so that the Services shall be delivered to the Owner no later than as directed by the General Conditions and Detailed Specifications, or at such later date directed by the Owner.

In the event the Services are not available for use by Owner as required by the General Conditions and Detailed Specifications, Contractor agrees to pay the Owner additional damages, based on actual cost, which may be incurred by Owner for failure to provide the Services, as required by the General Conditions and Detailed Specifications.

The Owner agrees to pay the Contractor in current funds for the performance of the Contract, subject to additions and deductions, as provided in the General Conditions and Detailed Specifications, and to make payments on account thereof as provided in the General Conditions and Detailed Specifications.

The parties to this Contract agree to incorporate into this Contract the mandatory language of Subsection 3.4(a) of the Regulations promulgated by the New Jersey State Treasurer pursuant to N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27, as amended and supplemented from time to time and the Contractor or subcontractor agrees to comply fully with the terms, provisions and obligations of said Subsection 3.4(a) of said regulations.

**IN WITNESS WHEREOF**, the parties of these presents have executed this Contract in three (3) counterparts, each of which shall be deemed an original on the day first above mentioned.

**ATTEST:**

**BOARD OF FIRE COMMISSIONERS, FIRE DISTRICT #9 ISELIN  
WOODBRIDGE TOWNSHIP, NEW JERSEY, OWNER:**

\_\_\_\_\_  
DIPAK THAKER, Secretary

By: \_\_\_\_\_  
MICHAEL RUDY. Acting Chairman (SEAL)

**CONTRACTOR:**

By: \_\_\_\_\_

**ATTEST/ WITNESS:**

\_\_\_\_\_

\_\_\_\_\_

(Print name and Title)  
(SEAL)

\_\_\_\_\_

(Print Name and Title)

Address

\_\_\_\_\_

**SECTION 6**  
**DETAILED SPECIFICATIONS**

**TECHNICAL SPECIFICATIONS TO FOLLOW**

**PLEASE NOTE:**

**Specific reference in the Technical Specifications to any article, device, product, material, fixture, form or type of construction by name, make or catalog number, with or without the words "or equal" shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition, and the Bidder in such cases, may at their option use any article, device, product, material, fixture, form or type of construction, which in the judgment of the Board, expressed in writing by the Board, is equal to that named. In all cases, new material shall be used.**

**Prospective Bidders must insert the manufacturer's name and model name and number they are submitting quotations on in the appropriate place provided for on the bid sheet. If bidding on "or equal", Bidder shall include literature and specification sheets with the bid. The determination of equivalency shall be solely that of the Board.**

***Board of Fire Commissioners  
Fire District #9, Iselin  
Woodbridge Township, New Jersey***



***Final Specifications for  
Re-Furbishment  
Saulsbury Air-Light  
Unit 9-3-4 Re-Bid***

***DATED: November 1, 2022***

**INSTRUCTIONS TO BIDDERS**

To be considered, all proposals must be made in accordance with these "Instructions to Bidders". Each bidder must complete re-furbishment pricing for the entire proposal. All work shall be complete with all needed components and completed in a professional manner in all aspects of the work required.

The delivered vehicle must fit into the current existing building with no modifications.

**INTENT**

These specifications are designed to protect the purchaser and to establish essential criteria for design, performance, and appearance of the vehicle, as well as the manufacturer for each product used where described within. When complete, this vehicle must meet all requirements of the any Federal Motor Vehicle Standards in effect at the time of delivery. The re-furbishment shall meet applicable sections of NFPA #1912 Re-furbishment items and sections of NFPA #1901 where necessary (safety items, warning lights, etc.)

These specifications are for the sole purpose of establishing the minimum requirements of level of quality, standards of performance, including standards of service and is in no way intended to prohibit the bidding of any manufacturer's item of EQUAL material or product. The term EQUAL shall be taken in its general sense and does not mean identical. The purchaser, however, shall in all cases be the sole judge of equality and render its decision as final.

It is the bidder's responsibility to explain all exceptions in detail on a separate sheet of paper provided at the end of this package, indicating the paragraph in this specification, number where the exception is taken and reason for same. Each exception shall be considered by the purchaser as to the degree of impact and total effect on their bid. The purchaser shall be the sole judge as to whether the exception is, in fact, acceptable.

All listed components are available to all bidders and to the public.

**DISTRICT INTENT AND EXPECTATIONS**

By bidding this apparatus you understand that the intent and expectations of the District is to have all items and concerns addressed in the bid package submission. It is the bidder's responsibility to address all questions and concerns with-in the bid submission. The district expects a complete, professional new like quality on the vehicle's condition of all existing and new components on its completion and return. It is the bidder's responsibility to ensure that all components are correct to provide ample and sufficient power and capacities in all aspects in the operation of this vehicle.

Board of Fire Commissioners, Fire District #9, Iselin  
 Woodbridge Township, New Jersey  
 Re-Furbishment of Unit 9-3-4 International/Saulsbury

Bidder  
 Complies

Yes No

**PRE-BID INSPECTION- NON-MANDATORY**

All bidders are strongly encouraged to inspect the current vehicle prior to bidding. Vehicle shall be available for inspection Thursday, January 12, 2022 at 10:30 AM. The District shall accommodate all bidders as needed for this inspection at the current station. Please contact William Kenny, Jr. Business Administrator at [bdofd9@comcast.net](mailto:bdofd9@comcast.net) at the fire department in setting up a visit to inspect the in-service unit if you are not available on the scheduled date. In addition, you can inspect the District's new chassis at that time.

**QUALIFICATIONS**

These qualifications are established as minimum performance criteria to protect the purchaser for service after the sale, in addition to the necessary qualifications for the manufacturer and their ability to build, modify, update, service and repair a quality product.

The bidding company must maintain a service department with full time technicians, equipped with parts necessary to provide for repairs of this vehicle. The bidder shall have access to fabricated components if needed to make the accidents or service repairs for the Fire District.

Bidder must indicate the size of facility, location, and number of full-time employees.

The bidder must comply to applicable National Fire Protection Association standards at the time of the bid. The refurbishment shall be compliant to applicable chapters of 2016 edition of NFPA #1901 on the air system and warning lights. Also, NFPA #1912 in the refurbishment of the vehicle.

The bidder must be engaged actively in the business of re-furbishment of fire apparatus and servicing emergency vehicles and submit proof of their experience and history in the fire service.

All forms must be filled in and signed by an authorized person of the refurbishment company. Bids signed by sales representatives shall be declared informal and shall not be accepted.

**COMPLETION REQUIREMENTS**

After signing of the final agreed upon contract, pre-construction meeting, receipt of the present air/light truck, and after the new chassis arrives at the bidder's facility. **Maximum of 365 calendar days from date of contract signing.**

Delays due to strikes, materials, and any item out of the direct control of the bidder shall be considered ( such as Covid-19 virus). If the delay is based on components, the item order date, and primary contact at the component facility shall be provided. The 'third-party' person working for the Fire District shall constantly monitor the vehicle's assembly. Reports from this person shall be shared with both bidder and Fire District.

**INSURANCE**

- For the protection of the Purchaser, the bidder must provide proof of general, automotive and product liability insurance. A certificate must be provided showing the purchaser as an additional insured. The bidder must provide proof of Garage Keepers insurance. Covering both the old chassis and existing body at bidder's factory in course of construction.
- The bidder is required to submit proof of statutory Workers Compensation Insurance on request.
- The bidder shall provide a certificate of insurance on the District new chassis. This shall extend coverage after receipt of the new chassis and until final delivery, instructions, and training on vehicle.

**WORKMANSHIP**

Any and all work that shall be performed must be of the highest quality in the industry, all workmanship methods must be approved by the component manufacturers, chassis manufacturer, and must meet the standards achieved in fit and finish from the body builder.

**INSPECTIONS AND BIDDER UPDATES**

Once production begins on the unit there must be monthly written progress report emailed including photo images and/or video updates. The committee may inspect the unit at any point during the construction process at mutually agreed on times.

Mid and final inspections shall be made by the purchaser, on a mutually agreed day or Saturday morning. All meals, traveling and lodging shall be the District's responsibility. The District has retained a 3<sup>rd</sup> party for specification development, assistance in bid evaluations, and inspections of apparatus as for specification compliance. After District and 3<sup>rd</sup> party inspections, if any deficiencies are noted, they shall be covered by "inspection reports" to District and the bidder for corrections prior to final inspection and/or delivery.

The District shall pick-up the old chassis at the mid-inspection and drive back to their location.

**TERMS OF PAYMENT**

The terms of payment shall be provided in the bidder's proposal. Pre-payment of the air compressor system shall be considered.

Board of Fire Commissioners, Fire District #9, Iselin  
Woodbridge Township, New Jersey  
Re-Furbishment of Unit 9-3-4 International/Saulsbury

Bidder  
Complies

Yes No

**BID FORM PAGE -- PRICING**

**QUOTED BID PRICE**

**Total price for the re-furbishment per these specifications:**

**Re-furbishment total price:**

\$ \_\_\_\_\_  
(numerical total re-furbishment cost)

\_\_\_\_\_  
(written total re-furbishment cost)

**OPTIONS:**

a) Under body compartments (per specifications) \$ \_\_\_\_\_

**UNDER BODY COMPARTMENTS -- OPTIONAL QUOTE**

On each side of the body ahead of the rear wheels, new underbody compartments shall be fabricated from 3/16" aluminum tread plate and installed. The compartments shall be as large as possible and shall have drop down doors, no compartment lights and shall have Turtle Tile installed. The doors shall be connected to the door open circuit. The doors shall drop completely down to prevent them from being used as a step.

**CHANGE ORDER PRICING & AGREEMENT**

The bidders must list their 'change order' labor rate of: \$ \_\_\_\_\_/hour

The bidders shall quote all materials additions or material deletions as "cost plus 20%" margin. Vendor documentation may be required to substantiate material additions or deletions. Re-stocking costs shall be permitted in certain cases, if charged by a supplier and due to purchaser requests. A sample of Bidder's change order format and conditions shall be submitted with the bidder's proposal.



**CHANGE ORDERS**

After the pre-construction meeting and signing of the contract, there shall be no changes unless covered by written "change orders". (No exceptions.)

Any adds or deletions, additional work or anything that may be required to change from the original bid proposal shall be noted and described in writing. Verbal changes or communications must be confirmed only by a written 'change order.' If any additional work, or labor/material is added or deleted there shall be a change order developed.

Purchaser must sign off on the cost, labor, materials, and change-order before work can continue. With the nature of re-furbishment work both parties understand that not every situation can be addressed until it arises or can be seen when components are inspected.

All change orders MUST be listed and shall continue in numerical order starting with the notes from the date of signing of the contract.

**PROPOSAL REQUIREMENTS**

The bidder's proposal must be on the attached BID FORM and shall also include District specifications, with BIDDER COMPLIES sections YES/NO boxes checked next to the corresponding paragraphs. This verifies that the bidder completely understands each paragraph and agrees as written and their company's specifications describes the same requirements.

If a bidder checks "NO" to any specification sentence or paragraph, they shall submit a separate EXCEPTION/CLARIFICATION page. The District specification page number and paragraph must be listed with reasons why bidder did not comply to District's specifications. Then and only then, shall the District decide to reject the proposal or allow the exception.

**PRE-AWARD MEETING**

The successful bidder shall conduct a pre-award meeting at the fire department location with the truck committee. The meeting shall be held on mutual agreed upon time on a weekdays or weekday nights.

At the pre-award meeting the bidder shall go through the entire bidder's proposal specification and present any questions at that time. Meeting minutes shall be taken by the District's 3<sup>rd</sup> party and revisions shall be submitted to both parties. If there are any changes or clarifications required to meet the District specifications; the manufacturer shall re-submit "final production specifications" that will be incorporated into the final contract. If there are credits or charges required, both manufacturer and District shall agree amounts and final contract dollar amount determined.

**PRE-CONSTRUCTION MEETING**

The District's 3<sup>rd</sup> party consultant shall meet at the manufacturer's factory to review all drawings, specifications, and details of production prior to starting of the actual work. Minutes of this pre-con meeting shall be submitted to District to affirm the proper production specifications and approval for the re-furbishment process to begin.

**CHASSIS INSPECTION AND PICK-UP**

The bidder shall pick-up the chassis at the District location and transport to factory. The chassis will be inspected by both parties. Insurance certificate shall be provided at that time.

**FINAL INSPECTION AT FACTORY**

The completed air/light apparatus shall have a "final inspection" at the bidder's location. Any deficiencies or corrections shall be completed after this inspection and before delivery of vehicle to District location. If re-inspection is necessary, the bidder shall be responsible for the inspection cost.

**DELIVERY OF APPARATUS**

The completed vehicle shall be driven to the District's fire station by the contractor and necessary training and instructions shall be provided.

**FINAL TRAINING, INSTRUCTIONS, AND OPERATING PROCEDURES**

The bidder shall coordinate all training on the vehicle prior to final delivery with District officials. The training shall consist of the following:

1. A minimum of one (1) complete day for air compressor operation, service, and maintenance instructions.
2. A minimum of one (1) complete day on overall apparatus instructions, generator operations, and all other components.

**FINAL "AS BUILT" MANUALS**

1. A complete "as built" air/light fire apparatus manual shall be provided for required training in both printed and electronic formats. This shall include "as built" 12 volt and high voltage wiring schematics.
2. A complete "as built" air compressor manual shall be provided for specified training in both printed and electronic formats. This shall include "as built" air compressor system and piping schematics.

Board of Fire Commissioners, Fire District #9, Iselin  
Woodbridge Township, New Jersey  
Re-Furbishment of Unit 9-3-4 International/Saulsbury

Bidder  
Complies

Yes

No

**ITEMS TO BE PROVIDED BY PURCHASER**

**LETTERING AND NFPA STRIPING**

All lettering shall be Fire District supplied. All NFPA required striping shall be Fire District installed and supplied.

**CHASSIS INFORMATION**

The new chassis shall be supplied by the District and is available immediately.

**AIR/LIGHT REFURBISHMENT SPECIFICATIONS**

**CHASSIS MODIFICATIONS**

1. **Tire chain system:** bidder shall supply and install new On-Spot tire chains with cab controls.
2. **Chassis Battery System:** chassis shall be furnished with (3) new batteries and battery mounting under cab. NOTE: Existing area in compartment #R-1 for batteries shall be removed and converted into a compartments space.
3. **Cab Step Fuel Tank Mounting:** The chassis supplied fuel tank shall be encapsulated with NFPA type non-skid .188" bright aluminum tread plate, with suitable cab steps installed.
4. **Front Bumper Extension:** the OEM bumper shall be extended 12" from the front grill area, covered with non-skid NFPA non-skid .188" type bright aluminum tread for siren and air horn installations.
5. **Bumper Guide Poles:** new chrome or stainless-steel units shall be installed with LED markers on top, wired to headlight circuit.
6. **Air horns:** two (2) new Grover or equal 24" air horns shall be installed, recessed mounted in center area of front bumper, with foot pedal activation for driver and a dash button for the officer.
7. **Front Siren Installation:** the existing FEDERAL Q2B siren shall be removed from chassis and re-installed in center front of front bumper. Two (2) floor mounted foot switches shall be installed in the cab. A siren-brake rocker switch shall be mounted on the cab console.
8. **"Back-Stop" Backing System:** shall be removed from existing chassis and re-installed at the rear of the apparatus body, with new controls and wiring to the chassis brake system.
9. **Rear Tow Eyes:** the existing rear tow eyes shall be replaced with new frame mounted units, easily accessible for use.

Board of Fire Commissioners, Fire District #9, Iselin  
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Re-Furbishment of Unit 9-3-4 International/Saulsbury

Bidder  
Complies

Yes

No

**10. Battery Charger and Air Compressor:**

- a) Kussmaul model 4012 Part Number #091-266-12-40-RCP, with remote control panel, 40-amp, 12-volt or equal
- b) Kussmaul Super Auto-eject with Yellow cover, #091-55-266 or equal
- c) Kussmaul 120-volt air compressor, with dry dryer, #091-96-1 or equal

**11. Center Console Installation:** A new aluminum center console shall be provided. The aluminum console shall hold all vehicle radios, map pockets, switch banks and any other vehicle related items. The bidder shall install components from the existing vehicle and re-install into the new cab. The layout and design to be discussed at pre-construction meeting.

**12. Cab Dome light:** One (1) Whelen dual Blue/Clear LED ceiling light or equal shall be installed in the cab with switch on console.

**FIRE APPARATUS BODY INSTALLATION**

The existing air/light body shall be professionally removed from the existing chassis. The use of back-hoe, excavator, or fork-lift methods are not acceptable. The apparatus body shall be mounted on a new UHMW mounting system and new U-bolts installed.

The completed body shall have all new Federal and State required DOT, NFPA, GVWR, and any other safety warnings and labels required for a new vehicle.

All existing shelving shall be completely removed and sanded, painted with clear coat, and re-installed. All compartment floors and shelves, drawers and mounting surfaces shall have new Turtle Tile covering installed.

The rear center roll-up door shall be replaced with a new ROM or AMDOR roll up door. The door shall have a painted job color (lime green) finish.

All major components that are removed from the existing body shall be crated in a large wood container and installed on the existing chassis for return to the District. (not including wiring, lights, hydraulic hoses, hydraulic tank, and un-usable items)

**BODY INSPECTION**

The entire body, inside and outside shall be completely UHP washed, degreased, and inspected. When the body has been removed if any cracks, corrosion, or defects are found the District shall be notified immediately. If necessary, the 3<sup>rd</sup> party person shall visit the bidder's factory and inspect areas in concern. If necessary, a change order shall be completed and approved by the District for the any unforeseen repairs. (The District understands that not everything can be specified or inspected due to unviewable areas are restricted by the chassis components.)

**REAR BODY AWNING**

On the rear of the body, a new full width awning shall be provided and installed. The awning shall be mounted to the roof section and shall have a manual extension system. The awning must clear the vertically hinged doors that store the fragmentation system, one each side. The light bars shall be mounted just above the awning. New brackets may be needed for the light bars. \*Note height issue in the station.

**NEW 12 VOLT ELECTRICAL SPECIFICATIONS**

All existing 12-volt wiring shall be removed from the body and all new electrical lights, switches, wiring, and conduit installed. This shall include a new cab console and body junction stations.

These specifications describe the installation and materials used in the low voltage electrical system, including all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The manufacturer shall conform to the latest automotive standards.

Wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops shall not exceed 10 percent in all wiring from the power source to the using device. Exposed wiring shall be run in a loom with a minimum 289-degree Fahrenheit rating. Wiring looms shall be properly supported and attached to body members. Electrical conductors shall be constructed in accordance with applicable standards, except when good engineering practice requires special construction.

All wiring connections and terminations shall provide positive mechanical and electrical connections and be installed in accordance with the device manufacturer's instructions. When wiring passes through metal panels, electrical connections shall be with mechanical type fasteners and rubber grommets.

Wiring between cab and body shall be split using push-on type connectors or enclosed in a terminal junction panel allowing body removal with minimal impact on the apparatus electrical system. Connections shall be crimp-type with heat shrink tubing with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather resistant connectors shall be provided throughout the system.

Electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. When required, automatic reset breakers and relays shall be housed in the main body junction panel.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless enclosed in an electrical junction box or covered with a removable electrical-panels. Wiring shall be secured in place and protected against heat, liquid contaminants and damage and shall be uniquely identified permanent marking with a circuit function code in junction boxes and identified on a reference chart and required electrical wiring schematic under the "manuals" section of this specification.

Low voltage overcurrent protective devices shall be provided for the electrical circuits. The devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. Overcurrent protection devices shall be automatic reset type suitable for electrical equipment and meet all applicable standards.

A single warning light switch shall activate all required warning lights. This switch shall allow the vehicle to respond to an emergency "calling for the right of way". When the parking brake is activated, a "blocking the right of way" system shall be automatically activated per applicable requirements. "Clear" warning lights shall be automatically shed on actuation of parking brake.

The electrical system shall include the following:

- Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. All terminal plugs located outside of the cab or body shall be treated with a corrosion preventative compound.
- All electrical wiring shall be placed in a protective loom or be harnessed.
- Exposed connections shall be protected by heat shrink material and sealed connectors.
- Large fender washers shall be used when fastening equipment to the underside of the cab roof and all holes made in the roof shall be caulked with silicone.
- Electrical components installed in exposed areas shall be mounted in a manner that shall not allow moisture to accumulate inside.
- A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.
- All lights in a weather exposed area that have their sockets shall have corrosion preventative compound added to the socket terminal area.
- Warning lights shall be switched in the chassis cab with labeled rocker type switches located in an accessible location. Individual rocker switches shall be provided only for warning lights provided exceeding the minimum level of warning lights in either the stationary or moving modes. All electrical equipment switches shall be appropriately identified as to their function and mounted on a switch panel mounted in the cab convenient to the operator. For easy nighttime operation, an integral indicator light shall be provided to indicate when a circuit is energized.

Upon completion of the vehicle and prior to delivery, the apparatus shall be electrically tested and the electrical testing, certifications, and test results shall be submitted with delivery documentation.

**SWITCH PANELS AND NEW CAB CONTROL CONSOLE**

A new cab switch console shall be provided to operate all systems and components on the chassis. The layout and design shall be prepared by the manufacturer and submitted to FD for approval prior to installation. This panel shall also include the new generator shift controls.



**WARNING LIGHTS**

The existing red warning lights (bumper sides, forward of the rear axle and rear body) shall be replaced with new Whelen M6 lower level or M9 upper-level Surface Max Series Super LED, red in color, with chrome bezels or equal. Master warning light switch installed on cab console.

The front grill shall have four (4) Whelen M6 Surface Max Series surface mount lights installed, red in color, with chrome bezels or equal.

On the body sides, ahead of the rear axle and side rear corners of body, four (4) Whelen M6 Surface Max Series surface mounted lights shall be installed – two each side, red in color, with chrome bezels or equal. Whelen WION warning lights shall be mounted in or under the rub rail on brushed stainless-steel brackets or equal.

One (1) Whelen Freedom IV-LC series #F4N2QLED or approved new Whelen lightbar or equal shall be provided. The 55" lightbar shall be designed to meet the minimum clearing requirements for Zone-A Upper Front area. The outer shell shall be clear optic polycarbonate lenses designed to maximize light output and shield against environmental elements. The lightbar shall have all solid-state components. The lightbar shall utilize snap-in brackets to hold in the lighthoods. The brackets shall give the end user the ability to make quick repairs. The base shall be black poly material and extruded aluminum platform, with permanent mountings. The lightbar shall have two (2) red front square-end corner modules shall be provided, with four (4) front LED lights, (2) red and (2) white, two (2) white alley lights.

The rear mini-light bars shall be replaced with two (2) Whelen Edge Freedom IV or approved new Whelen model – 21.5" light bars or equal. The light bars shall be fully populated and shall have lighting in all areas of the bar providing a 360-degree warning system. The light color shall be red.

A letter from Whelen shall be provided at the final inspection that the vehicle meets the current NFPA warning light certification.

**SCENE LIGHTS**

The six (6) existing 12-volt scene lights shall be replaced with Whelen M9 Surface Max Series Super LED, with chrome bezels or equal. Three (3) scene light switches (right, left, and rear) shall be installed on cab console. NOTE: If the opening for the existing light head is too large a piece of painted stainless steel that shall be fabricated and installed to give a pleasing appearance in the area. The plate shall be installed with dielectric isolation tape and completely sealed and professionally installed.

One (1) new 46" Firetech HIVIZ 12-volt brow light or equal shall be installed under the light bar. Controls shall be on the cab switch panel.

**ADDITIONAL ELECTRICAL EQUIPMENT**

DOT and ICC clearance body lights shall be installed, including body compartments, cab doors, front and rear bumper. New Whelen LED lights or equal shall be housed in a stainless-steel bezel holder. The rear step shall have two (2) Whelen ground lights or equal in the under-step area to luminate the primary work area. The lights shall activate automatically with the parking brake. A momentary light cancel switch shall be provided in the switch console in the event the lights are requested to be shut off.

The existing door mounted compartment lights shall be replaced with new, updated Whelen LED door mounted lighting. All compartments shall have dual LED compartment lights, full height, installed on the forward and rearward side of each compartment. These lights are in addition to the existing compartment lighting listed in the line above.

The rear DOT lighting shall be removed and replaced with individual chrome bezel that shall house new directional, reverse brake and lower-level warning lights. All lights shall be Whelen 900 series LED and the lower level (red) warning shall be WHELEN C9 Surface Max Series with red lenses and chrome bezels or equal.

On the area above the rear roll up door on the existing structure, a rearward facing Whelen LED arrow stick or equal shall be provided and installed to assist in traffic diversion and to meet the NFPA warning light Compliancy. It is understood that this light shall be blocked if the awning is used. All other current existing body mounted DOT lights shall be replaced with new LED lighting.

A new rear view and passenger side color camera system (bidder to provide information in quotation) with rear microphone shall be provided and installed. The passenger side camera shall activate with directional command.

The existing Mars mechanical siren shall be removed and re-installed on the new chassis bumper. All new wiring and the same activation as in the current vehicle.

A new Whelen Model #295HFSA7, self-contained electronic siren or equal shall be provided. The 200-watt, six (6) function siren shall have hands-free operation with public address and radio re-broadcast features. The siren shall have the following tones: wail, yelp, mechanical, hi-low, yelp/ whoop/warble (Power-call type tone), and air horn. The siren shall be able to operate in dual or mono modes. The siren shall have a face plate with green LED backlighting for easy control selection and visibility. The siren shall have a removable unidirectional microphone with a 'push to talk' function that shall override all siren functions. Two (2) Whelen Model #SA123BMC siren speaker or equal shall be recessed in front bumper. The 100-watt siren speakers shall have a chrome housing.

All existing compartment door sensors shall be replaced. The switches shall activate the compartment lights activation and door open warning light in the cab. NOTE: the front compartments shall have dual door sensors to sound a large alarm warning system when the breathing air compressor is operating when side compartment doors are not open.

Six (6) new Whelen #M6 stop/tail/directional/backup lights or equal at rear. One (1) new master disconnect switch on console for vehicle.

**120/240 VOLT ELECTRICAL & GENERATOR INSTALLATION**

**DIRECT DRIVE SPLIT-SHAFT GENERATOR**

A Lima Marathon #361 Series 58,000-watt continuous duty rating two (2) bearing direct drive power take off, split shaft driven generator or equal shall be installed. It shall be 3-phase, with a 120/240-volt rating at 480/240 amps at 1800 RPM at 60 Hertz. A Hale split-shaft driven transfer case or equal shall be installed with new heavy-duty series driveshafts. The split-shaft drive lines shall be equipped with "U" drop guards. The Hale gear box shall have a ratio to operate the generator at full load under 1400 RPM.

The generator shall be located: above the rear axle drive shaft between compartments #L2 and #R2 and ahead of the ASME cylinder storage area. The instrument control panel and circuit breaker panel shall be located: center rear compartment.

The chassis engine shall be equipped with a FRC automatic generator governor system. The system shall automatically engage AFTER the generator split-shaft engagement is completed. The engine high idle system shall be engaged in the cab with NFPA safety interlocks.

The voltage regulation shall be a maximum 3% from no-load to full-load. The voltage regulator shall be solid-state automatic electronic type; waveform harmonic distortion shall not exceed five percent total RMS. An Instruction Plaque attached permanently to the apparatus at any point where such operations can take place, shall provide the operator with the essential power source operating instructions, including the power-up and power-down sequence. A data plaque shall be installed on the generator instrument panel with the above electrical generator information, including engine speed, and engagement instructions.

Generator shall be mounted on a heavily reinforced steel frame in above chassis frame rail area providing adequate service accessibility. The generator shall be removable from the body through compartment doors. The generator shall be enclosed in quickly removable panels for service.

The generator shift control shall be located at new cab electrical console equipped with a cover to prevent the unintended engagement. An interlock shall prevent generator engagement unless the parking brake is applied per NFPA standards. A nameplate indicating the chassis transmission shift selector position to be used for generator operation shall be provided in cab and located so that it can easily be read from the driver's position. An interlock shall be installed to prevent engine speed control from foot pedal accelerator while the generator is operating.

Three (3) green indicator lights shall be located as follows:

- a) By driver and split-shift control "GENERATOR SPLIT-SHAFT CONTROL" indicating parking brake is set, transmission is in neutral, RPM is at idle and generator can be engaged.
- b) By driver and split-shaft control "GENERATOR OPERATIONAL" shall indicate transfer case shift has been completed and chassis in drive gear,
- c) A green indicator light labeled "GENERATOR ENGAGED" at the generator control panel.

**GENERATOR, WIRING, AND CIRCUIT BREAKER PANEL INSTALLATION**

A new 120/240-volt 3-phase master circuit breaker panel shall be installed in rear center compartment or where space permits (subject to the approval of the District). The panel shall be readily visible and located in the rear left compartment with unimpeded access to the panel board controls. The main over-current protection panel shall have a master circuit breaker for the entire generator system. It shall not exceed the amperage rating on the generator specification label.

A new circuit breaker box for line voltage equipment shall be provided capable of holding all circuit breakers for air compressor, light tower, exterior outlets, electric cable reel, and all other line voltage outlets. Installed in the center rear compartment over the air control panel. New manually re-set over-current devices shall be installed protecting all line voltage electrical system components.

A new 20-HP 240-volt 3-phase double pole double throw master disconnect switch shall be installed in #R-1 compartment to control the air compressor to isolate the generator power supply and shore power electrical supply.

Power supply assembly conductors, including neutral and grounding conductors, shall have an equivalent amperage rating and shall be sized to carry not less than 115 percent of the amperage of the nameplate current rating of the power source. Conductors in the power supply assembly shall be Type THHW, THW or USE stranded conductors enclosed in nonmetallic flexible conduit rated for a minimum of 194 degrees Fahrenheit.

Each individual circuit shall be provided with over current protection devices sized at not less than 20 amps in accordance with NEC. Over current protection devices shall each be marked to identify the function of the circuit it protects. The circuit breaker panel and instrument locations shall face the operator so that all circuit breakers are readily visible under normal operating conditions.

**GENERATOR MONITORING INSTRUMENTS**

The generator instrument panel shall include a new FRC 'Frog' type LED digital instrument panel, located next to circuit breaker panel facing the operator in the center rear compartment.

The following shall be installed:

- Amperage-L1
- Amperage-L2
- Amperage-L3
- Voltage
- Hour meter
- Frequency meter

**CONDUIT – LINE VOLTAGE WIRING INSTALLATION**

Type THHN stranded copper conductors with 600-volt insulation shall be installed in flexible moisture resistant reinforced conduit for use for line voltage wiring. Junction boxes conforming to the National Electric Code shall be accessible for service and not hidden in walls or ceiling. All wiring shall be separated a minimum of 12 inches from exhaust piping or properly shielded and separated from fuel lines by a minimum of 6 inches distance. Wiring shall not be attached to chassis suspension components, water or fuel lines, air or air brake lines, exhaust system components, or low voltage wiring.

Line voltage wiring in the vehicle shall be through with LIQUID-TITE seal-tight connectors and conduit. Wiring of the apparatus with Type SO or similar flexible electrical cord shall not be acceptable. Connectors shall be installed in accordance with the manufacturer's instructions. Wiring connections and terminations shall provide a positive mechanical and electrical connection.

**240-VOLT 3-PHASE LINE VOLTAGE SHORE POWER INLET TO AIR COMPRESSOR**

A new "pin and sleeve" receptable and plug assembly (no cable) shore power inlet line shall be provided to supply the air compressor control panel for use when the generator is off-line. This unit shall be rated for the air compressor and located in compartment #R1.

The shore power inlet supply shall be equipped with a double-pole / double-throw power disconnect. This will provide power from EITHER the generator or shore-power and no damage can be inflicted when switched from one power source to the other.

The District shall be responsible for the shore-line cab and fire station installation provisions.

**ELECTRIC CABLE REEL RE-INSTALLATION**

The Fire District supplied Hannay electric cable reel with electric rewind and cable are designed for use with 240-volt, 4-wire supply. The units shall be re-installed and re-wired to the new circuit breaker panel and located in the same location.

An information label shall be installed in a location visible adjacent to any permanently connected reel with the following data:

- 1) Voltage
- 2) Phase
- 3) Current type
- 4) Current rating
- 5) Total cable length

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**Bidder  
Complies**

**Yes**

**No**

**LIGHT TOWER**

The existing Wil-Burt light tower shall be re-installed in the present location. The existing floodlights shall be removed, and new lights installed and controlled from the center rear corner, breaker panel.

Six (6) new Whelen Pioneer Plus, PFP2AC, dual LED 20,614 lumens each, 120,000 total lumens or equal. Three (3) on each side of the light tower.

**120/240-VOLT OUTLETS**

The existing six (6) 120-volt and two (2) 240-volt outlets shall be replaced with new wiring, conduit, and junction boxes. New yellow covers and voltage labels shall be installed. The exact plug type & location shall be determined at the pre-award meeting.

**EXISTING GENERATOR**

The existing generator shall be returned. The 120-volt line voltage equipment shall be removed, including circuit breaker boxes, wiring, etc. and shall be disposed of by bidder.

**COMPARTMENT EQUIPMENT MOUNTING**

**SHELVING AND TOOL MOUNT -- RIGHT SIDE OF VEHICLE**

The following shelving, tool mount and compartment upgrades shall be provided:

**Passenger side #R1 – Right front compartment**

- A. As listed above in the specification, remove all batteries and system.
- B. Clean and install Turtle Tile on existing shelf and compartment floor above.
- C. Shelf shall be removed and reinstalled only if room is available.
- D. Purification system installed on left side wall with roll-out tracks.
- E. Air compressor MASTER disconnect shall be installed on right side wall.
- F. New Bauer air compressor installed center of #L1/#R1 compartment, directly under the lift-up door area.
- G. Lift-up door shall have a new AUTOMATIC operated air operated piston for opening and closing when air compressor is operating.
- H. New pin & sleeve shore power receptacle and plug shall be installed with double-throw switch in this compartment. (District to supply cable)
- I. Install new Turtle Tile as necessary

**Passenger side #R2 – ahead of rear wheels compartment**

- A. Remove and dispose of existing hydraulic oil tank
- B. Remove and dispose of existing hydraulic oil cooler
- C. Install and enclosed with removable panels the new LIMA 58KW generator or equal over truck rear drive shaft in compartments #L2/#R2.
- D. If necessary, move ASME cylinders (center of truck) and re-mount cylinders aft of 58KW generator
- E. Sand compartment shelves and clear coat -- reinstall
- F. Install new additional shelf at the height as directed. (for District's foam storage)
- G. Install new Turtle Tile on all floors and shelves.

**SHELVING AND TOOL MOUNT -- RIGHT SIDE OF VEHICLE**

**Passenger side #R3 – over wheel compartment**

- A. Sand compartment shelves and clear coat – reinstall and raise the existing shelf with exact location per pre-construction meeting.
- B. Install a new 2.5" polished stainless-steel sill protector shall extend 6" into the compartment floor. The stainless sill protector shall be completely sealed to prevent moisture from entering under the sill protector – with exact location per pre-construction meeting.
- C. The shelf and compartment floor shall both have Turtle Tile installed. The Turtle Tile on the compartment floor shall be secured to the floor as the District shall be storing a collapsible boat on the floor of this compartment. (If the floor tile is not completely secure it shall slide out when deploying the boat)
- D. A 120-volt shoreline powered ventilation fan shall be wired to KUSSMAUL shorepower power with switch. The unit shall be plumbed to atmosphere to allow air movement in this compartment to not allow any chance of contamination or mold from the stored boat and water rescue suits in this compartment to interfere with the breathing air compressors and systems.

**Passenger side #R4 – Right rear corner compartment**

- A. Remove the bottle wine rack and ship back loose to the District.
- B. Clean and clear coat the existing floor mounted pull out tray and create a mounting system and custom or PAC TRAC brackets on provided pull-out tray for the following District supplied DeWalt tools and battery powered 20-volt system that includes: Impact driver, Angle grinder, Drill, Circular saw, Battery chargers, Air tools, Grinder, Impact driver, Cut off saw
- C. 120-volt shore power outlet installed, wired to the KUSSMAUL auto-eject plug
- D. Adjust the existing shelf as directed.
- E. Add a new fixed shelf to a height as directed.
- F. All shelving and floors shall have Turtle Tile.



**COMPARTMENT EQUIPMENT MOUNTING**

**SHELVING AND TOOL MOUNT -- LEFT SIDE OF VEHICLE**

The following shelving, tool mount and compartment upgrades shall be provided:

**Driver side #L1 – Front left side compartment**

- A. Sand and clear coat the existing compartment shelving – re-installed
- B. Fabricate a new rack system to hold the District provided extinguishers, with four (4) total slots.
- C. Fabricate a new aluminum rack on floor mounted system to hold the District provided traffic cones.
- D. On the upper existing shelf, install a new aluminum angle to keep the two (2) District supplied cord reels from sliding forward.
- E. Under the shelf that holds the District supplied portable cord reels, fabricate a new shelf that mounts to the reel shelf to hold two (2) fire District supplied metal chairs.
- F. Install Turtle Tile on all floors and shelves.
- G. DANGER: sufficient air space must be left open for air compressor air flow.

**Driver side #L2 – Center side compartment ahead of rear wheels**

- A. Add a new strap or system to hold the District supplied pop-up tent in the rear forward corner.
- B. Add Turtle tile on the floor.
- C. Add new one (1) 500# SLIDEMASTER adjustable vertical pull out tool board with PAC TRAC panel and PAC mountings.
- D. On the pull-out board provide new PERFORMANCE ADVANTAGE hand tool brackets for the following District supplied tools: Married Irons, Married "Heavy Irons", Trash hook, Bolt cutters, Pipe wrench, Mini pike pole, Sledge-hammer, Pick axe.

**SHELVING AND TOOL MOUNT -- LEFT SIDE OF VEHICLE**

**Driver side #L3 - over wheel compartment**

- A. Remove and return all provided existing shelving.
- B. Add new one (1) SLIDEMASTER #500 steel floor slide out tray
- C. Add new one (1) SLIDEMASTER #250 aluminum pull-out tilt down slide out tray; the tray shall have a minimum of 10" high walls on each side and across the rear with a 2" lip on the front edge.

On the tray mount two (2) strips of Unistrut from left to right on the pull-out tilt shelf. Provide five (5) 10" tall, 3/16" aluminum dividers with the front edge to have a radius edge so it is not sharp. The dividers shall have a 3" bottom lip with holes to attach to the Unistrut in the pullout tilt shelf.

This shall provide a total of five (5) bins or storage areas for District supplied SCBA complete air packs. The system shall give the District to move the dividers as needed in the future.

Above the pull-out tilt shelf, there shall be a dual shelf system to provide two rows of District supplied bottle storage. The shelves shall be mounted as high as possible in the compartment. The shelves shall be independent of each other but shall be designed to hold the maximum number of bottles possible.

- D. On each fixed shelf mount two (2) strips of Unistrut from left to right.
- E. Provide as many .188" aluminum dividers as needed to fit the maximum number of bottles (two per chamber). The dividers shall have a 3" bottom lip with holes to attach to the Unistrut in the adjustable shelves. This shall provide storage areas for District supplied SCBA air bottles.

The goal is to have tow shelves with as many bottles as possible. All bottles shall be Scott 4,500 psi @ 45-minute bottles. With the exception of: two one hour 4,500 psi bottles that shall be specifically used for inflating the District provided boat. (Some bottles for sizing shall be provided). The system shall give the District to move the dividers as needed in the future.

- F. New Turtle Tile shall be installed on each shelf and shall be cut and installed between each strip of the Unistrut. NOTE: the bottles and or SCBA packs must not contact the aluminum Unistrut. If the Turtle Tile is not tall enough a spacer system using rubber ventilated matt or non-corrosive or moisture holding breathable device shall be used under the Turtle Tile.
- G. A new 120-volt shoreline powered ventilation fan shall be installed and wired to the KUSSMAUL shorepower with switch. The unit shall be plumbed to atmosphere to allow air movement in this compartment to not allow any chance of contamination or mold from the stored air packs and bottles in this compartment to interfere with the breathing air compressors.

**SHELVING AND TOOL MOUNT -- LEFT SIDE OF VEHICLE**

**Driver side #L4 – Left rear corner compartment**

- A. Remove all existing loose equipment brackets.
- B. Add new Turtle Tile to all compartment shelves and floor.
- C. Sand and clear coat the existing floor mounted pull put tray.
- D. On the pullout tray the District supplied Enforcer 10 Portable CAFS system.
- E. REMOVE the existing Sierra air compressor (ship back to customer)
- F. REMOVE the existing 120-volt outlet for the booster pump.
- G. In the forward section of this compartment -- fabricate a simple floor mounted bracket to allow the District supplied hand truck to lye down inside the compartment. (subject to design and further information from District.)

**ADDITIONAL COMPARTMENT EQUIPMENT**

- 1. Fabricate and mount (as room allows) a bottle transportation system to be connected and disconnected to the hand truck for transportation. The system must hold a minimum of 6 SCBA bottles (a 10-bottle system is desired). At the pre-construction meeting this shall be discussed with the members from the factory that deal with tool mounting.
- 2. All compartment floors, walls, and shelves shall be cleaned, sanded, and clear coated on aluminum surfaces as needed to give a pleasing appearance.
- 3. All shelves shall have a strip of polished stainless steel installed on each shelf edge, tool board edge and any fixed shelf edge to give a pleasing appearance. The trim pieces shall be deburred and installed with automotive double-faced tape.

NOTE: all existing adjustable shelves, slide trays, and other equipment shall be removed from the existing apparatus – high pressure washing, DA sanded, and sprayed with clear coat paint. Walls and door pans of the body shall be DA sanded in all areas before re-installation of any equipment (no clear coating of compartment interior walls is required).

NOTE: throughout the specifications certain items shall be returned to the Fire District; these shall be crated in wood box and attached to the old chassis.

**BREATHING AIR SYSTEM SPECIFICATIONS**

**BREATHING AIR SYSTEM AND AIR COMPRESSOR**

Specification for a high-pressure compressor and purification system to supply breathing air that meets or exceeds the requirements of CGA Pamphlet G-7, Compressed Air for Human Respiration, the requirements of ANSI/CGA G-7.1, Commodity Specification for Air, Grade E, and all other recognized standards for respirable air. The compressor and purification system shall be manufactured by the same supplier. The system shall be designed for a minimum working pressure of 6,000 PSIG. All equipment shall be new and of current design and manufacture. Used or refurbished equipment is unacceptable.

**GENERAL AIR COMPRESSOR SPECIFICATIONS**

The breathing air compressor shall be a BAUER Model #BP25H-E3 25.2 SCFM, 20HP three-phase with dimensions of 51" long x 40" wide x 32" high or equal. The compressor system shall be supplied by BREATHING AIR SYSTEMS, Reynoldsburg, Ohio, with system installation coordinated by Doug Ballmann.

The system shall be designed for continuous duty operation for both on a mobile air/light truck basis and indoor operation, with temperatures ranging between 32°F and 120°F. The final installer shall determine the best air intake location for the compressor in a protected area, with smoke detector provided at the air pick-up point. Both the FD user and bidder shall be required to provide adequate air flow and ventilation necessary for safe operations.

Installer provided air piping, tubing and high-pressure hoses shall be properly supported and protected to prevent damage from vibration during operation. High pressure piping/tubing and hoses shall be installed in a neat and orderly arrangement, adapting to the available room in the body. All air piping, hoses, & tubing shall be Type #300 series stainless steel and/or flexible air hose shall be a minimum of 7000 PSI rating.

**AIR COMPRESSOR SPECIFICATIONS**

Maximum Operating Pressure	6,000 PSIG
Charging Rate	25.2 SCFM
Free Air	21 SCFM
Running Speed	1300 RPM
Number of Stages	5
Number of Cylinders	4
Crankcase Material	Aluminum Alloy
Crankcase Oil Capacity	4 US Quarts
Lubrication	Pressure / Splash

The following shall be provided on compressor:

- 5-micron inlet particulate filter
- Stainless steel air-cooled intercoolers between each stage
- Stainless steel air-cooled aftercooler
- Safety relief valve for each stage of compression
- Final oil and moisture separator

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**Bidder  
Complies**

Yes No

- V-belt driven fan wheel for cooling air
- Integrated oil filler and sight glass
- Bauer automatic condensate-drain (A.C.D.) complete with combination separator-muffler, drain solenoid, and timer and collection system.
- Interstage pressure gauges for each stage of compression. (Glycerin filled safety type)

The compressor shall be an air-cooled, oil lubricated, five-stage, four-cylinder, reciprocating compressor. The second and fourth stage of compression shall share one common stepped cylinder.

The crankcase shall be cast of a high strength, aluminum alloy. The crankshaft shall be of a single piece forged steel construction and supported in the crankcase by three long-life roller bearings. The connecting rods shall be of single piece design and constructed of a high strength aluminum alloy. Each connecting rod shall incorporate a roller bearing at the crank end and needle bearing at the pin end.

The pistons shall be constructed of an aluminum alloy. Piston rings on the first through fourth stage are of cast iron; fifth stage rings shall be of a high strength polyamide. The final stage shall incorporate a ringed, free-floating, aluminum piston, which is driven by a guide piston and the previous stage's discharge pressure. The cylinders shall be of cast iron construction with deep cooling fins on the external surface for optimum heat dissipation. The cylinders shall be arranged in a dynamically balanced, diametrically opposed "X" configuration with each cylinder located directly in the cooling fan's blast. The cylinders shall be removable from the crankcase. The compressor's flywheel shall be cast iron. A multi-wing, high velocity cooling fan shall be integral to the flywheel. The fan wings shall be replaceable.

An intercooler shall be provided after each stage of compression and an aftercooler shall be provided after the final stage of compression. The coolers shall be individually detachable from the compressor, located directly in the cooling fan's blast and made of stainless steel. The aftercooler shall be designed to cool the discharge air to within 18°F of ambient temperature. A cool-down cycle shall not be required prior to stopping the compressor.

An intercooler shall be provided after each stage of compression and an aftercooler shall be provided after the final stage of compression. The coolers shall be individually detachable from the compressor, located directly in the cooling fan's blast. The aftercooler shall be designed to cool the discharge air to within 18°F of ambient temperature. All cooler assemblies shall be fabricated of stainless steel. A cool-down cycle shall not be required prior to stopping the compressor.

The compressor shall be lubricated by a combination low pressure lubrication system. The final stage of compression shall be lubricated by a pressurized lubrication circuit. The other stages and the driving gear shall be splash lubricated. The low-pressure lubrication circuit shall include a positive displacement oil pump, gear driven by the crankshaft, a non-adjustable oil pressure regulator, and full flow replaceable cartridge type oil filter element. Two (2) highly visible sight glasses shall be included to check the oil level; one on each side of the crankcase.

The oil drain for the compressor shall be extended to the outside of the frame to case fluid draining by the installer with a valve control, plugged outlet, and name plate tag to denote **DANGER – AIR COMPRESSOR OIL DRAIN.**

**ELECTRIC MOTOR AND DRIVE SYSTEM**

The electric motor shall be of the "Totally Enclosed Fan Cooled" design. A 20-HP, 240-volt three-phase SOFT START motor shall be supplied or equal. The compressor and motor shall be mounted on a common frame. The compressor and motor shall be arranged in a vertical design. Power from the motor shall be transmitted to the compressor by a V-belt drive. The V-belt drive shall be designed to tighten the drive belts automatically. Rotation arrows shall be affixed in a conspicuous place on the compressor.

The final installer shall be responsible for installation of the required electric generator (volts, amps, frequency) including a master disconnect switch and properly fusing for the air compressor system.

The following shall be furnished and installed:

- Open drip proof motor
- Solid-state SOFT-START motor with controls in NEMA 12 enclosure
- Inlet particulate filter
- High temperature shut-down
- Low oil pressure shut-down
- Final pressure switch
- Stage pressure gauges on compressor
- Pressure maintaining valve
- Discharge check valve
- Final oil/moisture separator

The compressor system shall be base mounted, frame enclosed, complete with belt guard. The system shall be equipped with remote electrical control box, purification system, all compressor controls, and compressor gauges along with fault lamps.

**ELECTRICAL AND INSTRUMENTATION SPECIFICATIONS**

The BAUER compressor control panel (CCP) shall include an across-the-line magnetic soft-start motor starter, industrial power supply, and PLC controller. The CCP shall be built in accordance with UL 508A, the standard for industrial control panels and shall be affixed with a UL label.

The PLC compressor control system consists of a programmable logic controller for the monitoring, protection, and control of the compressor systems.

The following shall be provided:

- A NEMA Type 4 electrical enclosure
- UL electrical panel
- Human Machine Interface (HMI) with 4-Line Back Lit Text Display and Emergency Stop.
- HMI Remote station: shall be installed at the rear apparatus air control panel.
- Customizable home screen
- Real Time Clock (time and date)
- Compressor on / off
- Digital Display of Compressor Final Pressure

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**Bidder  
Complies**

**Yes      No**

- Digital Display of Compressor Oil Pressure
- Digital Display of current Compressor Run Time
- Digital Display of Final Separator Cycle Count
- Compressor High Temperature Shutdown and Alarm
- Built in overtime timer set at 5 hours
- Maintenance Timer (selectable between real time or compressor run time) to give Digital Display of all needed preventative maintenance requirements
- Motor overload alarm
- Non-resettable hour meter
- Recoverable Run History (last 5 run periods)
- Recoverable Alarm History (last 5 fault shutdowns)
- PSI readings on gauges.

For ease of Maintenance and Repair:

- PLC has removable terminal blocks for all functions.
- Diagnostic EEPROM (Electrically Erasable Programmable Read-Only Memory) capability.
- Wiring shall be encapsulated within a split corrugated type-loom.
- Each wire end connection shall be machine crimped and numbered.

**INTERSTAGE GAUGES**

The air compressor inter-stage pressure shall be monitored at the compressor only with inter-stage pressure gauges.

**HMI REMOTE SYSTEM – REAR CENTER COMPARTMENT**

The breathing air system shall be equipped with a detachable and remote BAUER HMI display panel installed in the center rear compartment by refurbishment bidder.

The HMI shall have (22) adjustable system parameters secured by password protection. The HMI shall provide display of all safety / fault shutdowns with a scrolling text of up to three potential causes for the fault / shutdown.

The compressor oil pressure shall be monitored by a pressure transmitter and digitally displayed on the HMI. The compressor shall shut down and a fault shall be indicated on the HMI should the compressor's oil pressure drop below the factory preset value during operation. The oil pressure transmitter shall be by-passed during start-up to permit the oil pump to achieve the normal operating pressure.

The low oil pressure and final air pressure transmitters shall be equipped with sealed electrical connectors. The analog pressure sensors for oil pressure and final pressure shall have adjustable set point and dead-band thru the HMI (password protected).

A temperature switch shall be supplied on the head of the final stage of compression. The compressor shall shutdown and a fault shall be indicated on the HMI should the final-stage temperature exceed the tamper-proof set point during operation.

**AUTOMATIC CONDENSATE DRAIN SYSTEM**

Compressor shall be supplied with a new Bauer automatic condensate drain system, which will automatically drain the inter-stage and final oil/moisture separators to drain at 15-minute intervals. All condensation shall be plumbed to a collection system for safe disposal. The unit shall be mounted in compartment #R1.

Compressor unloading at shutdown shall be provided by the automatic drain system. Compressor intercoolers and aftercooler shall be of such a size that a cool down cycle will not be necessary.

The breathing air compressor shall be equipped with a "zero loss" automatic condensate drain (ACD) system and shall be supplied for all the separators. The system shall purge the separators on a timed event, approximately every fifteen minutes yet significantly decrease the inter-stage and final separator pressure drop.

The compressor display and control system shall support of the ACD system, with interval and duration set points adjustable thru the HMI, password protected.

The following shall be provided:

- Digital Display of time to next ACD Cycle
- Condensate Drain Reservoir full alarm

The reduction in pressure loss shall allow the compressor to reach maximum operating pressure quicker. During the blow down cycle, radiant noise levels shall be significantly reduced and tubing to the ACD manifold and collection reservoir are significantly reduced.



The ACD system shall unload the compressor on shutdown for unloaded restart. An exhaust muffler and condensate reservoir shall be supplied. Manually operated valves shall be supplied to override the automatic operation of the ACD system for test and maintenance purposes.

**CARBON MONOXIDE MONITOR**

The unit shall be equipped with a new Bauer electronic carbon monoxide monitoring system or equal shall be mounted in compartment #R1 with alarms mounted in rear center compartment.

The system shall be designed to provide continuous monitoring of the carbon monoxide levels in the processed breathing air and shall shut the compressor system down if the monitor detects trace elements of carbon monoxide in excess of 10 ppm. Along with the system shutdown, the panel mounted fault indicator shall illuminate upon high CO. The instruments electronics shall be encased within a NEMA 4X polycarbonate enclosure. The case is corrosion resistant, positively pressurized by the compressor air supply line, and sealed except for a bleed hole to exhaust the compressor's processed air. The unit shall operate on system voltage. Along with a built-in flow meter, the system shall include an illuminated display and internal switches to check the system circuitry.

There shall be no calibration adjustments or controls as the system functions are managed by the system microprocessor. The chemical cell shall have a life expectancy of approximately two to three years with a calibration period recommendation of every 30 days. The system shall include two cylinders of test gas; 20 ppm carbon monoxide and zero test gas. An additional a regulator shall be provided. Recalibration shall only require the following:

- Shut-off the compressor supply line. If the operator fails to close the valve a prompt on the monitor display shall indicate "Supply Off"
- Connect the test gas to the cal port connector on the instrument panel.
- The monitor display will read "Cal Gas" and shall automatically initiate a 60-second countdown.

After the unit has automatically calibrated itself, a message shall appear "CO G Set" indicating that the CO adjustment has been set for 20 ppm.

**ELECTRIC MOISTURE MONITORING SYSTEM**

The purification system shall include a Bauer B-Securus electronic moisture monitor system or equal shall be mounted in compartment #R1. The Securus purifier cartridge supplied for direct monitoring of moisture levels. The Touch Screen Display shall indicate the status of the Securus cartridge in compartment #R1.

The Securus system shall warn the operator, in advance, of the impending expiration of the Securus cartridge via a scrolling text display message on the panel mounted operator / compressor interface. The compressor shall shut down automatically and the operator notified via audible alarm and scrolling text display message on the panel mounted operator / compressor interface should the operator fail to change the Securus cartridge within the warning period. The compressor shall not be capable of restarting until the used cartridge is replaced with a new one.

The moisture monitoring system shall be of a fail-safe design. Should the electrical contact between the display module and sensor be disconnected, an immediate fault shut down shall be affected. For absolute safety and highest quality breathing air, no manual override shall be supplied for the moisture monitor.

**PURIFICATION SYSTEM**

The purification system shall include an electronic moisture monitor system shall be installed in compartment #R1 as follows: Bauer Securus Model #P-5S, 150,000 cubic foot air processing capability or equal.

The purification system shall purify high pressure air to a quality that meets or exceeds the requirements of CGA Pamphlet G-7, Compressed Air for Human Respiration, ANSI/CGA G-7.1, Commodity Specification for Air, Grade E, and all other recognized standards for breathing air. Purification shall be achieved by mechanical separation of condensed oil and water droplets, adsorption of vaporous water by a desiccant, adsorption of oil vapor and elimination of noxious odors by activated carbon and conversion of carbon monoxide to respirable levels of carbon dioxide by catalyst.

The high-pressure purification chamber shall have a working pressure of 6000 PSIG with a 4:1 safety factor. The purification system shall utilize a replaceable cartridge. The purification system shall be designed so that the replacement of the cartridge can be accomplished without disconnecting system piping. The design of the chamber shall preclude the possibility of operating the system without a cartridge installed or with an improperly installed cartridge.

A bleed valve shall be provided to vent the purification system to facilitate replacing the cartridge. A pressure maintaining valve and a check valve shall be supplied downstream of the purification system to increase the efficiency of the purification system by maintaining a positive back pressure. A check valve shall be supplied between the coalescing separator on the compressor's discharge line and the purification system to maintain the positive pressure in the purification system when the compressor shuts down.

The purification system shall be mounted on slide-out track in compartment #R1 on left side of the compartment wall by installer.

**SCBA AND SCUBA FILL STATIONS**

Two (2) SCBA fill stations shall be a BAUER Model #CFS-5.5-2M (with no base) or equal two (2) position with controls and fill station panel shall be installed in the left-side and right-side rear compartments. The fill stations shall be constructed of formed plate steel and shall be fully enclosed. The front-loading, two-position; containment fill station shall totally enclose the SCBA or SCUBA cylinders during the refilling process.

The fill stations shall be provided and shall not exceed the following approximate dimensions: 39" high, 30" wide, and 21" deep. The weight with base and side control panel shall not exceed 550#.

The SCBA fill station shall be built and tested exceeding the current standards as established by NFPA 1901, 2016 Edition. Additionally, the fill station shall be proof tested utilizing the largest, by volume, 5500 psi SCBA cylinders available at the time of the fill station manufacturers' specification generation.

The fill station's outer enclosure and door assemblies shall be constructed of formed ¼ inch thick plate steel. Venting shall be provided in the bottom of the fill station to allow the rapidly expanding air from a ruptured cylinder to escape from the fill station. The fill station shall be ergonomically designed for maximum operator convenience and safety for refilling cylinders. The fill station door and cylinder holder assembly shall tilt out towards the operator 45 degrees, providing unobstructed access to the cylinder holder to load and unload the cylinders. A handle and heavy-duty gas spring shall be incorporated into the design of the fill station to assist the operator in opening and closing the fill station door. It shall take no more than approximately eighteen pounds of effort to open or close the fill station door thereby eliminating operator fatigue.

Each cylinder holder shall consist of a thick-walled polymer tube which shall surround and cradle the SCBA cylinder during the filling process. This type design shall eliminate the need for SCBA cylinder scuff protection and shall allow for concussive flexure in the event of a ruptured cylinder thus maximizing operator protection.

Designs that do not cradle the cylinder or allow unsupported pressurized cylinders to hang outside the fill enclosure shall be deemed unacceptable as they expose the operator to greater risk of accidental mishandling of a pressurized cylinder during the disconnection process.

For complete operator protection, the fill station shall include a safety interlock system that shall prevent refilling SCBA cylinders unless the fill station door is closed and secured in the locked position. The automatic interlock shall require no actuation of secondary latching mechanism on the outside of the fill station.

Two (2) SCBA fill hoses shall be supplied and located within the fill station. Each fill hose shall be equipped with a bleed valve and SCBA fill adapter of choice. Fill hose retainers shall be provided to anchor the fill hoses; CGA-346 male adapters shall be provided to anchor the fill hoses when not in use.

The fill control panel shall be installed on the front of the fill station. The control panel shall be factory piped and designed to fill two (2) SCBA or SCUBA cylinders either independently or simultaneously.

Installation of the fill stations shall require high pressure connections from the main air control panel; one high pressure connection to each fill position and one to the fill stations air actuated door interlock system. The air-line to the door interlock system must be tapped in after the fill panels regulator and before the fill valves to insure proper operation of the fill station door.

All piping and tubing shall be properly supported and protected to prevent damage from vibration during shipment, operation, or maintenance. Piping and tubing shall be installed in a neat and orderly arrangement, adapting to the contours of the station. All instrument tubing shall be Type #300 series stainless-steel or flexible 7000# hose.

All control panel mounted pressure gauges shall be 2.5" diameter and be liquid filled. All panel-mounted components shall be labeled with a nameplate.

**BREATHING AIR CONTROL PANEL**

A new BREATHING AIR SYSTEMS (BAS) #CC2X4X4M custom built air control panel or equal shall be installed in the center rear compartment. The panel shall be labelled with all necessary components for filling SCBA and SCUBA cylinders by the 3-bank cascade method of filling from a storage system or from the breathing air compressor.

The recharging of the nine (9) Fire District ASME storage cylinders from a remote air source shall be available through this panel from the new Bauer air compressor or from the bulkhead remote inlet.

The new BAS anodized aluminum engraved fill panel(s) shall be provided. All panel-mounted components shall be piped with high pressure Type #300 stainless-steel tubing or BAS 7000 flexible hose. All panel mounted components shall be individually labeled.

The rear center control panel shall include the following:

1. Nine (9) inlet pressure gauges: Bank A, Bank B, Bank C, four (4) SCBA fill gauges, two (2) gauges for fill and supply pressure
2. Eight (8) control valves: Bank A, Bank B, Bank C, two (2) #M2703 controls for one (1) for each fill position, and air refill port valve
3. One (1) Bauer HMI remote air control panel (noted previously)
4. Two (2) new flexible hose lines to air reel panels
5. Four (4) new flexible hose lines to SCBA fill stations
6. One (1) bulkhead connection with cap and valve installed on air panel for filling of the nine (9) Fire District supplied ASME cylinders from a remote compressor location.

**AUTO-SEQUENTIAL CASCADE RE-FILL CONTROLS**

The rear air panel shall have a BAS auto-sequential cascade refill system, with #M2708 and #M2708A or equal for re-filling the A-B-C Cascade Banks. The auto-cascade sequential refill controls and system will fill the highest cascade bank to nearly 6000 PSI, then fill the next one to nearly 6000 PSI, and then fills the last bank to nearly 6000 PSI. Then tops all of them to 6000 PSI before shutting the compressor down. This creates the most efficient fill sequence.

**AIR SUPPLY HOSE ASSEMBLIES**

Fourteen (14) BAS 7000# PSI hose assemblies (approximately 220 feet):

Four (4) to each fill station

One (1) to air compressor

Three (3) to FD's ASME cylinders, Bank A-B-C

Two (2) hoses, one to low pressure and one to high pressure existing air reels

Air fittings shall be supplied:

Four (4) hoses and #10155-4-4 connections 1/4" MNPT for ASME banks.

Twenty-four (24) #10655-4-4 fittings 1/4" JIC female connections for the installation

**PUSH BUTTON SWITCH TO CHANGE FROM 4500 PSI TO 5500 PSI SCBA FILLING**

The air panel shall have a push-button switch to change from 4500 PSI (default) to 5500 PSI filling for SCBA units. The fill pressures can be adjusted; however, the lower pressure is always the default. The SCBA fill stations will fill to the same pressures.

**FIRE DISTRICT SUPPLIED AIR EQUIPMENT**

The following equipment shall be supplied from the present air/light vehicle:

1. One (1) low pressure HANNAY air reel, control valve, regulator, pressure gauge
2. One (1) high pressure HANNAY air reel, control valve, regulator, pressure gauge
3. Nine (9) ASME air cylinders with drains, valves, pigtails, and plumbing connections

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Bidder  
Complies

Yes

No

**BAUER AIR COMPRESSOR & BAS INSTALLATION TESTING – PRIOR TO DELIVERY**

The breathing air system shall be tested by BREATHING AIR SYSTEMS prior to delivery at the refurbishment bidder location. This testing and approval for operational & specification compliance is required and essential. The inspection and test results must be provided on delivery of the apparatus.

A manufacturer's nameplate shall be securely affixed to the inside of the electrical box. The nameplate shall include, at a minimum, manufacturer's name, model number and serial number, compressor block number, voltage, frequency of maintenance and service, and date of manufacture.

**BAUER AND BREATHING AIR SYSTEMS – TRAINING OF AIR COMPRESSOR SYSTEM**

The local Bauer service center technical and BAS trainer shall provide structured training course to operate the breathing air system, covering nomenclature of components, proper operation of the unit, daily operational maintenance checks, and other information necessary for personnel to properly operate and maintain the air system.

The operator training shall be conducted within one week after the system is fully accepted and readied for service by the Fire District. Such training shall be at a mutually agreed upon by the time and date.

**INSTRUCTIONS, LABELING AND MANUALS**

All major components and accessories shall be clearly identified and labeled. Appropriate caution and warning labels shall be affixed where necessary to advise the users how to safely operate and adjust the equipment.

Knobs, gauges, valves and other equipment shall be clearly marked as to function and operation. The final installer & BREATHING AIR SYSTEMS shall provide schematics and drawings that document the "AS BUILT" system. Any symbol used shall be described in a key chart on the drawing. All schematics and drawings shall be delivered with the fire apparatus.

The following information shall be shown:

- The general arrangement of the system
- The electrical wiring and controls
- The air control panel surface showing all controls, gauges, valves, outlets and other specified equipment.
- The piping system showing all valves, gauges, controls, cylinders or vessels, piping and specified equipment.

A complete breathing air manual shall document the operation and maintenance of the system shall be provided. Nomenclature for switches, controls and indicators shall be consistent with that used on the schematics and diagrams required and on equipment nameplates.

The manuals shall include, but not necessarily be limited to, the following:

- An illustrated parts list.
- A schedule of maintenance and adjustment checks
- A lubrication schedule.
- Troubleshooting information to enable a technician to locate trouble and to make repairs or adjustments to the equipment.
- Step-by-step procedures for starting, operation and stopping the equipment.

**AIR COMPRESSOR DOCUMENTATION PACKAGE**

A BAUER and BAS documentation package shall be supplied with the breathing air system. The documentation package shall include, at a minimum, an operation manual, recommended spare parts list, warranty information and a start-up/warranty registration form.

The breathing air system shall have an Operator's Instruction and Maintenance Manual shall be as detailed and outlining all operation and maintenance instructions. The manual shall include detailed illustrated drawings for the compressor block and all system components along with a complete parts listing for all illustrated components. Warnings and safety precautions shall be identified clearly in the manual.

The breathing air system shall be covered by two (2) year warranty on the breathing air system by the manufacturer. An additional three (3) year warranty on the compressor block. The warranty provisions shall be provided on request and/or installation of the unit. Provisions of this warranty shall be provided on completion of the installation.

**GENERAL REQUIREMENTS FOR AIR SYSTEM INSTALLATION**

**AIR COMPRESSOR INSTALLATION BY REFURBISHMENT BIDDER**

The following shall be completed on the new air compressor installation:

- a) The existing air compressor, generator, and controls shall be placed in crate for return to District.
- b) The existing hydraulic pump, motor, cooler and hydraulic tank shall be removed from the apparatus and disposed of by bidder.
- d) Installation shall be in the front center of apparatus body between compartments #L1 and #R1 over the frame rail area. The compressor electric box shall be wired to a new circuit breaker box in compartment #R1.
- e) A new Bauer electronic control box shall be located on the right wall and purification system on the left wall on a new roll-out tray in compartment #R1.
- f) The final installer shall be responsible for a safe and adequate mounting surface for the compressor, air cylinders, and specified other equipment. The compressor assembly shall have self-leveling provisions.

**AIR SUPPLY – DISTRICT SUPPLIED ASME CYLINDERS**

New high-pressure breaker air hose shall be installed to connect to from the air compressor to the new air control panel and to and from the ASME cylinders. The high-pressure air hoses shall be run inside a plastic protective conduit. High pressure hoses and valves on the ASME cylinders shall be re-used.

Nine (9) 6,000 PSI ASME breathing air cylinders shall be re-used, conforming to Code Section VIII, Division 1, for non-corrosive service. ASME cylinders have a 3 to 1 safety factor at 6,000 PSI. The AMSE cylinders shall be remain in the present position and mountings.

ASME safety relief valves shall be changed to 6,500PSI. The ASME cylinders shall have new pig-tailed in banks of (3) cylinders and then piped to the air control panel with (3) new separate supply hoses. The hose and pig-tail working pressure shall be a minimum of 6,000 PSI.



**INSTALLER REQUIREMENTS**

The air system shall be installed to the highest of standards as they apply to this vehicle. All fittings and hoses shall be rated for the maximum allowable pressure that could be encountered, with a 3 to 1 safety factor.

All fittings, tubing and hoses shall be corrosion resistant or treated to resist corrosion. No threaded close nipples shall be used. Plugs shall be par stock type hex heads. All piping and tubing shall be blown out with clean, dry air before it is installed.

When making up threaded piping joint, the sealant shall be applied to the thread in a manner that will prohibit entry of sealant into the piping system. Pipes or tubes installed, but not connected, shall have the ends enclosed with threaded caps or plugs to prevent the entry of foreign material.

All rigid piping compressed air lines shall be secured to a rigid body or chassis component at a minimum of every 16" and within 4" on each side of a coupling or elbow. Rigid piping shall run in an orderly manner with a minimum of bends and elbows. The piping installation shall provide room for maintenance and repairs with easy access panels provided where applicable.

Flexible hoses shall be installed in such a manner as to prevent cuts, abrasion, exposure to damage, excessive temperatures, damage from loose equipment, and excessive bending. The hose shall be installed in a manner that permits removal of the hose without removal of major vehicle components or vehicle mounted equipment. The system shall be designed and constructed to withstand the stresses, vibrations, and other conditions incident to being mounted on a fire apparatus and being used in mobile service.

All screws, pins, bolts, or other fasteners whose failure would create a hazardous condition for personnel or equipment shall be equipped with locking devices. Safety wire, self-locking nuts, cotter pins, lock-washers, and liquid locking components shall be acceptable.

The entire system shall meet all requirements established by the Occupational Safety and Health Act (OSHA), Department of Transportation (DOT), Compressed Gas Association (CGA), American Society of Mechanical Engineers (ASME), and National Fire Protection Association (NFPA) specifically Pamphlet 1901, Chapter 21.

**AIR COMPRESSOR AND GENERATOR INSTALLATION TESTING**

The complete air compressor and electrical generator system shall be tested at full load for a minimum of 4 hours at 100% rated capacity with actual electrical loads or a load bank used for testing at the re-furbishment factory. Test results shall be at 15-minute intervals during the 4-hour period with results submitted on delivery.

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Woodbridge Township, New Jersey  
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**Bidder  
Complies**

**Yes**

**No**

Bidder- list all exceptions on pages listed below:

1. PAGE NUMBER:      **EXCEPTION:**

2. PAGE NUMBER:      **EXCEPTION:**

3. PAGE NUMBER:      **EXCEPTION:**

**END OF SPECIFICATIONS**