BID, CONTRACT, AND SPECIFICATIONS FOR

JUMPER STATION VFD

2500 GALLON TANKER TRUCK

FOR CALHOUN COUNTY, SOUTH CAROLINA

CDBG# 4-CE-15-001

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Section 1
INVITATION TO BID

Calhoun County, South Carolina is soliciting sealed bids for a new 2500 Gallon Tanker Truck for the Jumper Station Volunteer Fire Department. Sealed Bids must be received by Calhoun County at their Office, 102 Courthouse Drive, Suite 108, St. Matthews, SC 29135, **no later than 2:00 p.m., local time Thursday, May 5th, 2016**, at which time and place all bids will be publicly opened and read aloud.

The work to be performed includes the manufacture and delivery of a new 2500 Gallon Tanker Truck, as set forth in the Bid, and as specified in the Bidding Documents and Technical Specifications. Maximum time allowed to manufacture and deliver the apparatus is 275 days.

Bid documents may be examined at the Calhoun County Administrative Building, 102 Courthouse Drive, Suite 108, St. Matthews, SC 29135 or at the Lower Savannah Council of Governments Office Building, 2748 Wagener Rd., Aiken, SC 29801.

Bid documents may be obtained from Calhoun County, 102 Courthouse Drive, Suite 108, St. Matthews, SC 29135, Boyce Till, (803) 874-2435, BTill@calhouncounty.sc.gov. Bid documents may also be download from the Calhoun County website: http://www.calhouncounty.sc.gov/Pages/default.aspx

All bids must be accompanied by a certified check, or a bid bond of a reputable bonding company authorized to do business in the State of South Carolina, in an amount equal to at least five (5%) of the total amount of the bid.

This project is being funded in whole or in part by the South Carolina Community Development Block Grant (CDBG) program. All federal CDBG requirements will apply to this contract. Bidders on this work will be required to comply with the President's Executive Order No. 11246 & Order No. 11375 which prohibits discrimination in employment regarding race, creed, color, sex, or national origin. Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, the Contract Work Hour and Safety Standards Act, and 40 CFR 33.240. Bidders must make positive efforts to use small and minority-owned business, where possible.

Bidders should refer to Section 2 – Instruction to Bidders for detailed instructions.

No submitted bid may be withdrawn for a period of ninety (90) days after the scheduled closing time for the receipt of bids.

The Owner reserves the right to accept or reject any or all Bids and to waive informalities.

Section 2
Instructions to Bidders

2.1 GENERAL INFORMATION

A. It is the intent of Calhoun County (hereby referred to as the Owner) to secure an apparatus constructed to withstand the severe and continuous use encountered during emergency firefighting services. The apparatus must be of the latest type, carefully designed and constructed with due consideration to the nature and distribution of the load to be sustained.

The Technical Specifications (Section 9) detail the requirements for general design criteria of the apparatus components. In evaluating the bids to determine which proposal the lowest responsive and responsible, these major items shall be considered.

Apparatus and equipment must meet the specific requirements and intent of the requirements listed in the Technical Specifications. All items of the specifications shall conform to the character of the proposed apparatus and the purpose for which it is intended. Criteria as specified by the National Fire Protection Association Pamphlet 1901, latest edition, entitled "Suggested Specifications for Motor Fire Apparatus", as approved by the American Insurance Association and International Association of Fire Chiefs, are hereby adopted and made a part of these specifications the same as if they were written out in full, insofar as they apply and are not specifically modified in the Technical Specifications. Each bidder shall provide only that equipment as required in the Technical Specifications.

The fire apparatus and equipment to be furnished in meeting the Technical Specifications must be the products of an established, reputable fire apparatus and/or equipment manufacturer. Each bidder shall furnish satisfactory evidence of the manufacturer's ability to construct, supply service parts and technical assistance for the apparatus specified. Each bidder must state the location of the factory and location for post delivery service.

In the event that any supplier should wish to submit a proposal but finds it impossible to comply with all the specifications set forth, their proposal will be received provided the following is adhered to: *Any exceptions, substitutions, deletions or any deviations from these specifications shall be explained in detail on a separate page entitled "Exception to Specifications". Bidder must show proof that any exception is equal or superior to those specified. Failure to conform to the above requirement shall be cause for bid rejection. The apparent silence of the Technical Specifications as to any details or the omission from it of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of first quality and correct type, size, and design are to be used. All workmanship is to be first quality. All interpretations of this specification shall be made upon the basis of this statement.*

The Owner reserves the right to waive technicalities and reject any or all bids.

2.2 CONTRACT DOCUMENTS

A. The Contract Documents include the Contract Agreement, Invitation to Bid, Instructions to Bidders, Contractor's Bid (including all documentation accompanying the Bid and any post-Bid documentation required by the Owner prior to the Notice of Award), Bonds, CDBG Contracting Provisions, General Conditions, Specifications, Drawing and Addenda, together with written amendments, change orders, Owner's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement. The Contract Documents shall define and describe the complete work to which they relate.

2.3 WORK TO BE DONE

A. The work to be done consists of furnishing all materials and equipment and performing all labor necessary for manufacture, purchase, and delivery of a 2500 Gallon Tanker truck as specified. All work will be done for Calhoun County, South Carolina as set forth in the Bid form, and specified.

2.4 EXAMINATION OF DOCUMENTS

A. Upon receipt of Bidding Documents, the Bidder shall verify documents are complete. The Bidder shall notify the Owner within 5 days receipt of the Contract Documents if the Documents are incomplete.

B. The Bidder shall immediately notify the Owner, in writing, upon finding discrepancies or missions in the Contract Documents.

2.5 QUALIFICATIONS OF BIDDER

A. The Contractor shall demonstrate that they have sufficient means and experience in the types of work described in the Contract Documents to assure completion of the work in a satisfactory manner. The Contractor shall include the following information in the Bid Form in the space provided:
   1. Submit a list of successfully completed projects of similar character and magnitude to the proposed project. Projects must have been completed in the last five (5) years as follows:
      a. Manufacture and delivery of motorized firefighting apparatus
   2. The Owner will evaluate the projects submitted and will be the sole judge of the project experience. With consideration being given to:
      a. The Bidder's demonstrated commitment for expedient delivery
      b. The Bidder's commitment to the general conditions contained herein, including warranty
      c. The Bidder's equipment suppliers and/or local representative's demonstrated capabilities and qualifications.
   3. The information requested shall be completed in its entirety by the Bidders.
   4. Failure to provide the information may render a bid as non-responsive.

5. The submitted information will be evaluated by the Owner and will be considered in determining a "responsible" Bidder. Should the Owner adjudge that the apparent low Bidder is not the lowest responsible Bidder by virtue of the above information, said apparent low Bidder will be so notified and his Bid Security shall be returned.
6. FAMA Compliance – The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA)

B. If the Owner is in doubt as to the qualifications or competency of the bidder, he reserves the right to request further supporting information prior to the award of the contract.

C. The Owner or their representative may contact references during nay part of this process. The Owner reserves the right to contact any other references at any time during the evaluation process.

2.6 PREPARATION AND EXECUTION OF BID

A. Each bid must indicate compliance with the Technical Specifications (Section 9). **The bidder shall submit the technical specifications with "Yes" or "No" clearly marked in the appropriate check box for each individual section of this specification**. A "YES" indication to a section shall mean full compliance; a "NO" indication shall mean an exception is being taken. Any deviation from the specification, no matter how small, must be so annotated. All exceptions must be fully explained on a separate page, titled "Exceptions", giving reference to the page and paragraph where the exception is being taken. **Failure to comply with this requirements shall result in the bid being rejected**. Calhoun County shall be the sole arbiter as to what exceptions may be allowed or disallowed. In the event a bidder fails to make any indication or compliance for any or all provisions it will be assumed that the bidder is taking total exception to the specifications and the bid shall be disallowed.

B. Each Bid must be submitted on the Bid Forms, which are attached to the Contract Documents. All blank spaces for Bid prices must be filled in, in ink or typed. The total price on the Bid Form must include all items listed in the Technical specifications. Listing any items contained in the specifications as an extra cost item, unless specifically requested to do so, shall be cause for rejection of the bid.

C. Proposal Blueprint – A scale drawing of the specific apparatus being proposed shall be submitted with the bid. Drawings of similar units or demo units shall not be permitted. Bidders should be clear that this provision is requiring a scale drawing of the truck which is actually being bid. The drawing shall be done at the manufacturer's facility by the manufacturer's engineering department in order to guarantee the accuracy of the drawing. Failure to comply with this requirement shall be grounds for rejection of the bid.

D. The bid price shall be F.O.B. Destination, on a delivered and accepted basis at the Jumper Station VFD, 1603 Basil Rd., Swansea, SC 29160.

E. Bidders shall compute pricing including federal and state taxes. It is understood that any applicable taxes shall be added to the proposed prices, unless the purchaser furnishes appropriate tax-exempt forms.

F. Each Bid must be submitted in a sealed envelope addressed to the Owner. Each sealed envelope containing a Bid must be plainly marked on the outside as, **"Jumper Station VFD 2500 Gallon Tanker Truck" and include the name of the Bidder**

E. Any Bid submitted which does not contain the above information on the outside of the sealed envelope will not be opened and may be returned to the Bidder.

F. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed to the County Administrator at Calhoun County, South Carolina Courthouse Annex, 102 Courthouse Dr., Suite 108, St. Matthews, SC 29135 to the Attention of Mr. Lee Prickett.

G. The official time of the receipt of the sealed envelope is kept by the Owner.

H. Any and all Bids not meeting the aforementioned criteria for Bid submittal, may be declared non-responsive, and may be returned to the Bidder.

2.7 EXCEPTIONS TO SPECIFICATIONS

A. Exceptions shall be referenced to the page number and section name of the Technical Specifications (Section 9) where the item appears. Deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page number and section name from the technical specifications, providing an explanation of how the deviation meets or exceeds the specifications, and why it necessary, and shall be entitled "Exceptions TO Specifications". Drawing, photographs, and technical information about the exception shall be included as necessary. Any exceptions may be considered during the evaluation process, and the decision shall be final. Proposal taking total exceptions to specification shall not be accepted.

2.8 "OR APPROVED EQUAL"

A. Brand names or model numbers have been specified for some items, followed by "or approved equal". These have been carefully selected because of their reliability and availability for replacement locally. In order to be most responsive, items named, or an item "equal to" the particular item specified by brand name or model, should be contained in the bid proposal. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number (s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications, and why it is necessary, and shall be entitled Exceptions To Specifications". Calhoun County reserves the right to require a bidder to provide proof in each case that substituted item is equal to that specified. It is the bidder's responsibility to prove to Calhoun County that an item bid as "equal to" a particular specified item, is truly of equal quality design, and function. The owner maintains the right to make a final decision as to the acceptability of an item bid as "equal to" a particular specified item.

Bids not submitted in accordance with these instructions shall be rejected.

2.9 INQUIRES AND ADDENDA

A. If any person contemplating submitting a bid for the project is in doubt as the true meaning of any part of the Specifications, or other Contract Documents, or as to the scope of any part of the work, shall submit a written request for an interpretation.

B. No interpretation of the meaning of the Specifications or other pre-bid documents will be made to any Bidder orally.

C. Every request for such interpretation should be made in writing and addressed to the Owner, and to be given consideration, must be received at least five (5) business days prior to the date fixed for opening bids.

D. If any person contemplating submitting a bid for the project is in doubt as to the true meaning of any part of Specifications, or other Contract Documents, or as to the scope of any part of the work, he shall submit to the Owner a written request for an interpretation thereof. All requests can be sent (via fax) at 803-874-1242 to Boyce Till or by email at btill@calhouncounty.sc.gov. Submittal of questions via email is preferred. Answers to submitted questions will be available on the county website: http://www.calhouncounty.sc.gov/Pages/default.aspx . The person submitting the request will be responsible for its prompt delivery in ample time for an interpretation to be issued before the bid opening date. Requests will be answered promptly and up to 72 hours before bid opening time.

E. The Owner will not be responsible for other interpretations of the Documents.
   1. Any and all such interpretations and any supplemental instructions will be in the form of written Addenda to the Contract Documents which, if issued, will be mailed to all prospective Bidders (at the respective addresses furnished).

F. Failure of Bidders to receive or acknowledge any Addendum shall not relieve them of any obligations under the Bid. Addenda shall become part of the Contract Documents.

2.10 RECEIPT AND OPENING OF BIDS

A. All Bids will be publicly opened and read.

B. No Bids will be received or opened after the time and date set for opening bids.

C. Bidders are encouraged to be present at the Bid Opening.

D. Any Bid may be withdrawn prior to the above scheduled time for opening of Bids or authorized postponement thereof. No bidder may withdraw a bid within ninety (90) days after the actual date of the opening thereof.

E. The Owner may consider as informal any Bid not prepared and submitted in accordance with provisions hereof and may waive any irregularities or reject any and all Bids.

2.11 CONDITIONS OF THE PROJECT

A. Each Bidder must be informed fully of the conditions relating to the carrying out and completing this project. Failure to do so will not relieve a successful Bidder of the obligation to furnish all material and labor necessary to carry out the provisions of the Contract. Insofar as possible, the Contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.

2.12 NOTICE OF SPECIAL CONDITIONS

A. The Community Development Block Grant (CDBG) is providing partial funding for this project (CDBG# 4-CE-15-001). As such, all Bidders shall review and be fully aware of the requirements of the latest issue of the CDBG Contract Special Provisions. These provisions contain information that the Bidders will have to comply with if the project is awarded to them.

B. If any special federal, state, county laws, municipal ordinances, and the rules and regulations of any authorities having jurisdiction over the construction of the Project, enclosed, herein referred to, or applicable by law to the Project, conflict with requirements of the Contract Documents, then the most stringent requirement prevails.

C. Bidders shall be solely responsible for delivery of Bids in manner and time prescribed.

D. By Submission of a Bid, each Bidder warrants that Bidder is thoroughly familiar with the Contract Documents (including all addenda). 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 the Bid.

E. Bidders shall include in their Bid monies for payment of state and local sales tax on all taxable materials specified to be furnished by the Contractor and incorporated into the work under this Contract. The Contractor shall furnish the Owner with records of all state sales tax paid on items, which are eligible for tax refund to the Owner.

2.13 METHOD OF AWARD

A. The Contract will be awarded to the responsive, responsible Bidders submitting the lowest Bid complying with the Conditions of the Contract Documents. Award will be made on the basis of the prices given in the Base Bid and any alternatives. The lowest Bid will be determined by the Owner and may include any combination of, or none of, any alternates in addition to the Base Bid. The Owner will award the work to one Contractor. It is the Owners intent to award a contract for the completion of all sections of the Work. However, the Owner at their discretion, may elect to eliminate alternates from the project. The lowest bid will be determined by the Owner based on the combination of the sections of work that will be awarded.

B. The Owner reserves the right to reject any and all Bids and any part of the Bid and to waive any irregularities in Bids received whenever such rejection or waiver is in the Owner's interest. The Owner also reserves the right to disregard all non-conforming or conditional bids or counterproposals.

C. A responsive Bidder shall be one who submits a Bid in the proper form without qualification or intent other than as called for in the Contract Documents and who binds himself or herself on behalf of the Bid to the Owner with the proper Bid Bond completed and attached, and who properly completes all forms required to be completed and submitted at the time of the Bidding. The Bidder shall furnish all data required by these Contract documents. Failure to do so may result in the Bid being declared non-responsive. No changes to the contract documents are permitted. Should the low bidder insist on changes, then that bidder will be disqualified from being awarded the contract.

D. Acceptance of the Bidder's documentation and substantiation or Contract Award by the Owner does not relieve the Bidder of liability for non-performance as covered in the Contract Documents, nor will the Bidder be exempted from any legal recourse the Owner may elect to pursue.

2.14 Security Deposit

A. Each proposal shall be accompanied by Bid Security in the form of a certified check or bid bond in amount to equal to not less than five per cent (5%) of the amount of the bid to guarantee that the successful bidder will, enter into a contract with the Owner, and execute to the Owner, a Performance Bond and a Payment Bond by the project completion date. The Contract Agreement, Performance Bond, and Payment Bond shall be on the forms set forth in the Contract Documents.

B. If a Bid Bond is provided, it shall be prepared on the form of the Bid Bond included herein or a Surety Company's Standard Bid Bond, duly executed by the Bidder and having as surety thereon a surety company authorized to do business in the State of South Carolina. Attorneys-in-fact who sign Bonds must file with each Bond a currently dated copy of their power of attorney.

C. If for any reason a Bidder withdraws his bid, after the bids have been opened, and refuses to execute the required contract and bonds within ten (10) days after the receipt of notice of the acceptance of Bid, the Owner may retain the amount of the certified check, or proceed on the remedies provided in the Bid Bond.

2.15 SURETY ON PERFORMACE AND PAYMENT BONDS

A. A contract performance bond and payment bond, each in an amount equal to one hundred percent (100%) of the agreement amount, will be required of the successful bidder.

2.16 RETURN OF BID SECURITY

A. The Owner will, within ten (10) days following the bid opening date, return the certified checks of all Bidders, except the certified checks posted by the three lowest bidders. Upon final award and execution of Contract, the remaining certified checks will be promptly returned.

2.17 PRODUCT LIABILITY INSURANCE

A. Each Bidder must have product liability insurance equal to or exceeding $15,000,000.

2.19 DURATION OF BID

A. Bids shall remain open to acceptance and shall be irrevocable for a period of 90 days after bid closing date.

2.20 CONTRACT AWARD

A. The Owner reserves the right to reject any or all bids deemed to be unresponsive and to accept that deemed most advantageous for value received. The Owner also reserves the right to waive any informalities, irregularities and technicalities in procedure.

B. The Owner reserves the right, before awarding the contract, to require the Bidder to submit additional evidence of his qualifications as may be deemed necessary. Documentation, which may be required, is financial soundness, technical competency, and other pertinent qualifications of a bidder, including past performance with the Owner.

C. **Upon award of contract, the sales contract shall be between the Owner and the manufacturer of the apparatus.** Contracts between the Owner and a sales representative, dealer, distributor, or agent of the apparatus manufacturer shall not be acceptable.

Section 3
BID FORM

TO: CALHOUN COUNTY, SOUTH CAROLINA

FROM: _____
Bidder's Name

FOR: JUMPER STATION VFD 2500 GALLON TANKER TRUCK

Submitted:_____, 2016

3.1 FUNDING

A. The South Carolina Community Development Block Grant (CDBG) program is providing partial funding for this project. (CDBG# 4-CE-15-001)

3.2 BID FORM AND BID SCHEDULE

A. The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Bid Form or in the Contract to be entered into; that this Bid Form is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

B. The undersigned Bidder, in compliance with your Invitation to Bid for this project by having examined the Contract Documents, and being familiar with all conditions, hereby proposes to complete the project in accordance with the Contract Documents.

C. The Bidder proposes and agrees, if the Bid is accepted, to contract with Calhoun County, South Carolina to provide for the manufacture and delivery of the apparatus in complete accordance with reasonably intended requirements of the Contract Documents to the full and entire satisfaction of Calhoun County, South Carolina with a definite understanding that no money will be allowed for extra work except as set forth in the Contract Documents:

DIVISON 1 - JUMPER STATION VFD 2500 GALLON TANKER TRUCK (Minus CDBG Ineligible Items Listed In Division 2)

Quantity	Unit	Description	Total Price
1	Lump Sum (LS)	2500 Gallon Tanker Truck	$_____

Total Bid for Division 1 in the amount of ($_____)

DIVISON 2 – CDBG Ineligible Items

Quantity	Unit	Description	Unit Price	Total Price
2	Lump Sum (LS)	4" 30 deg chrome elbows	$_____	$_____
1	Lump Sum (LS)	3,000 gallon drop tank	$_____	$_____
2	Lump Sum (LS)	Folding wheel chocks	$_____	$_____

Total Bid for Division 2 in the amount of ($_____)

Total Bid, inclusive of Division 1 & 2, in the amount of:

($_____)

3.3 TERMS OF BID

A. The Bidder further proposes and agrees hereby to commence work under this contract, with adequate force, on a date specified (Notice to Proceed) in a written order from the Owner, and shall fully deliver the apparatus to the acceptance of the owner hereunder within 275 days from the Notice to Proceed date:

   Bidder further agrees to pay as liquidated damages, the sum of $250.00 for each consecutive calendar day thereafter required to complete and deliver the apparatus as heretofore provided in the Instructions to Bidders.

B. In case of discrepancies between the figures shown in the unit prices and the totals, the unit prices shall apply and the totals shall be corrected to agree with the unit prices.

C. The Bidder furthermore agrees that, in the case of a failure to execute the Contract Agreement and Bonds within ten days receipt of conformed Contract Documents for execution, the attached Bid Bond accompanying this Bid and the monies payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure.

D. Attached hereto is a Bid Bond for the sum of Five Percent (5%) of the Amount Bid according to the conditions of "Instruction to Bidders" and provisions thereof.

3.4 ADDENDA

A. Bidder acknowledges the receipt of the Following Addenda:

BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA.

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

Addendum No. _____ Date: _____

3.5 SIGNATURES

BIDDER – PRINCIPAL:_____
(Signature)

Name: _____
(Printed)

Address: _____

_____

Phone: _____

ATTEST: _____
(Signature)

Name: _____
(Printed)

Title: _____
(SEAL)

Note: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a notary.

Note: If the bidder is a corporation, the bid shall be signed by an officer of the corporation; if a partnership, it shall be signed by a partner; if signed by others, authority for the signature shall be attached.

3.6 REFERENCES

The Bidder shall here state what work he has done of a similar nature to that bid for and give references that afford the Owner the opportunity to judge as to experience, skill, business standing and financial ability.

A. Project Name and Owner:_____

Project Contact (Name and Phone Number):_____

Project Description:_____

_____

_____

B. Project Name and Owner:_____

Project Contact (Name and Phone Number):_____

Project Description:_____

_____

_____

C. Project Name and Owner:_____

Project Contact (Name and Phone Number):_____

Project Description:_____

_____

_____

Section 4
CONTRACT AGREEMENT

This Contract Agreement made and entered into the _____ day of _____, 2016, by and between Calhoun County, South Carolina (hereinafter referred to as Owner), and _____ _____ (hereinafter referred to as Contractor).

WITNESSETH:

That the Contractor, for the consideration hereinafter fully set out, hereby agrees with the Owner as follows:

That the Contractor will furnish all products, tools, equipment, skill and labor of every description necessary to carry out and to complete in a good, firm, substantial workmanlike manner the manufacture and delivery of the **Jumper Station VFD 2500 Gallon Tanker Truck (CDBG# 4-CE-15-001)** and will complete work in strict conformity with the Technical Specifications, together with foregoing Bid made by the Contractor, the Invitation to Bid, Instruction to Bidders, Performance and Payment Bonds, General Conditions, CDBG Contracting Provisions and all Addenda hereto incorporated (if applicable) which form the essential parts of this Contract Agreement, as if fully contained herein. That the Contractor shall commence the Work to be performed under this Contract Agreement on a date to be specified in a written order from the Engineer and shall fully complete all work hereunder within 275 consecutive calendar days from the Notice to Proceed date, except as otherwise provided in these documents for extension of the above time limit. Time is of the essence and is an essential element of this Contract, and the Contractor shall pay to the OWNER, not as a penalty, but as liquidated damages, the sum of $250.00 for each calendar day that there is default of completing the Work within the time limits named herein. If the Contractor abandons the Contract before commencement of the Work or defaults in completion of all the Work after commencement thereof, the Contractor shall be liable for such liquidated damages. These fixed liquidated damages are not established as a penalty but are calculated and agreed upon in advance by the Owner and the Contractor due to the uncertainty and impossibility of making a determination as to the actual and consequential damages incurred by the Owner as a result of the failure on the part of the Contractor to complete the Work on time. Such

liquidated damages referred to herein are intended to be and are cumulative and shall be in addition to every other remedy now ore hereafter enforceable at law, in equity, by statute, or under the Contract. The Owner hereby agrees to pay the Contractor for the faithful performance of the Contract Agreement, subject to additions and deductions as provided in the Specifications and Bid, in lawful money of the United States of America, the sum of _____ ($_____) which sum shall also pay for loss or damage arising out of the nature of the Work aforesaid, or from the action of the elements, or from unforeseen obstructions or difficulties encountered in the prosecution of the Work, and for all expenses incurred by, or in consequence of the Work, its suspension or discontinuance and for well and faithfully completing the Work and the whole thereof, as herein provided, and for replacing defective work or products as described in the Contract Documents.

The Owner shall make payment to the Contractor in accordance with the provisions of the Contract Documents.

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Contract Agreement and the surety bonds hereto attached for its faithful performance, the Owner shall deem the surety or sureties upon such bond to be unsatisfactory, or if, for any reason, such bond ceases to be adequate to cover the performance of the Work, the Contractor shall, at no additional expense to Owner, within five days after the receipt of notice from the Owner to do so, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the Owner. In such event, no further payment to the Contractor shall be deemed to be due under this Contract Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the Owner.

IN WITNESS WHEREOF, the parties hereto have executed this Contract Agreement under their respective seals on the day and date first above written in six counterparts each of which shall, without proof or accounting for the other counterparts, be deemed an original Contract.

OWNER:___CALHOUN COUNTY, SOUTH CAROLINA_____

By:_____

Name:_____
(Please Print)

WITNESS:_____

Name:_____
(Please Print)

Title:_____
(Please Print)

CONTRACTOR:_____

By:_____

Name: _____
(Please Print)

Title:_____
(Please Print)

ATTEST:_____

Name:_____

(Please Print)

Title:_____

Note: If the Contractor is a corporation, the Contract Agreement shall be signed by the president or vice president, attested by the secretary and corporate seal affixed. If the Contractor is a partnership, the Contract Agreement shall be signed in the partnership name by one of the partners, with indication that he or she is a general partner.

END OF DOCUMENT

Note to Bidders: This contract agreement is being provided as an example. The contract agreement entered into must be approved by the SC Carolina Department of Commerce, Grant Administration Division, and must be in accordance with CDBG, State of South Carolina and Calhoun County requirements.

Section 5

NOTICE OF AWARD

To: _____
_____
_____
_____
_____

PROJECT Description: Manufacture and delivery of Jumper Station VFD 2500 Gallon Tanker Truck in accordance with the Contract Agreement, and all documents incorporated therein.

The OWNER has considered the BID submitted by you for the above described WPRK in response to its Invitation for Bids dated _____, 2016, and the Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of:
$_____

You are required by the Information for Bidders to execute the Agreement and furnish the required Performance BOND, Payment BOND and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS, within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BIND. The OWNER will be entitled to such right as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 2016

_____
Owner
By: _____

Title:_____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by this the _____ day of _____, 2016.

_____

Contractor

By:_____

Title:_____

END OF DOCUMENT

Section 6

NOTICE TO PROCEED

Date: _____

To: _____

Project: Jumper Station VFD 2500 Gallon Tanker Truck (CDBG# 4-CE-15-001)

You are hereby notified to commence WORK in accordance with the Agreement dated _____

_____, 2016, on or before _____, 2016, and you

are to complete the WORK within 275 consecutive calendar days thereafter. The date of completion of

all WORK is therefore;_____, 2016

_____
Owner

By_____

Title_____

ACCEPTANCE OF NOTICE
Receipt of the above NOTICE OF AWARD is hereby acknowledged by this the _____ day of _____, 2016.

_____
Contractor
By:_____

Title:_____

END OF DOCUMENT

Section 7
GENERAL CONDITIONS

7.1 GENERAL CONDITIONS

Article 1 - Contract Security The Contractor shall furnish two Surety Bonds each in an amount at least equal to one hundred percent (100%) of the contract price, one as security for the faithful performance of this Contract and one for the payment of all persons performing labor and furnishing materials in connection with this Contract. Such Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the State where the Project is located and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. If at any time a surety on any such Bond is declared bankrupt or loses its right to do business in the State where the Project is located or is removed from the list of Surety Companies accepted on Federal Bonds, the Contractor shall, within 10 days after notice from the Owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety as may be satisfactory to the Owner. The premium on such Bond (or Bonds) shall be paid by the Contractor. No further progress payments shall be deemed due, nor shall be made, until the new surety furnishes an acceptable Bond to the Owner. The Bonds shall be countersigned by an agent who is a resident of the County. The person executing the Bond on behalf of the surety shall file with the Bond a general power of attorney unlimited as to amount and type Bond covered by such power of attorney, and certified to by an official of said surety.

Article 2 - Contractor's and Subcontractor's Insurance: The Contractor shall provide any and all information regarding the insurance policies as the Owner may require. The insurer shall provide, along with the insurance certificates, a list of all exceptions, limitations, exclusions, or other items which may in any way affect the coverage required by this contract. All certificates of insurance and policies shall contain the following clause: "The insurance covered by this Certificate will not be canceled or materially altered unless at least thirty (30) days prior written notice has been given to the Owner."

1. Product Liability Insurance: Each bidder shall supply proof of product liability and facility equal to or exceeding $15,000,000.

Article 3 – Laws of the Place: The Contractor shall conduct the Project in accordance with the applicable national, state, county, and municipal laws, ordinances, and regulations. The Contractor shall keep himself fully informed of those laws, ordinances, and regulations which would, in every way, affect those engaged and employed in the Project, the materials used in the Project, and the conduct of the Project; and informed of all orders and decrees of bodies and tribunals having jurisdiction and authority over the Project. If discrepancies or inconsistencies, or both, should be discovered in the Construction Agreement, Technical Specifications, or combinations thereof, in relation to laws, ordinances, regulations, orders, and decrees, the Contractor shall forthwith report the fact, in writing, to the Owner. The Contractor shall protect and indemnify the Owner, his officers, agents, and employees, against claims and liabilities arising from, or based on, the violation of those laws, ordinances, regulations, orders, and decrees, whether by the Contractor or by his employees.

Article 4 - Payments to Contractor: The Contractor agrees to accept one (1) payment for total amount due under the Contract once project is completed, delivered, and accepted by the Owner.

Article 5 – Owner's Right to Withhold Certain Amounts and Make Application Thereof: The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies including commissary, incurred in the furtherance of the performance of this contract. The Contractor shall furnish satisfactory evidence that all obligations of the nature herein above designated have been paid, discharged, or waived. If the Contractor fails so to do, then the Owner may after having served written notice on the said Contractor, either pay unpaid bills, of which the Owner has written notice, direct, or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged, whereupon payment to the Contractor shall be resumed, in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor or his Surety. In paying any unpaid bills of the Contractor, the Owner shall be deemed the agent of the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.

Article 6 – Assignments: The Contractor shall not assign the whole or any part of this Contract or any moneys due or to become due hereunder without written consent by the Owner. In case the Contractor assigns all or any part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to prior liens of all persons, firms and corporations for services rendered or materials supplied for the performance of the work called for in this Contract.

Article 7 - Time for Completion and Liquidated Damages: If the contractor shall neglect, fail or refuse to complete the work within the contract period, or with any proper extension granted by the Owner, than the Contractor shall agree to pay the Owner an amount of $250 for each calendar day that the Bidder is in default.

Article 8 - Schedule: Immediately after execution and delivery of the Contract, the Contractor shall deliver to the Owner an estimated progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion and delivery of the apparatus required under the Contract Documents

The Contractor shall also furnish on forms acceptable to the Owner a detailed estimate giving a complete breakdown of the Contract price. The Contractor shall also furnish on forms acceptable to the Owner periodic itemized estimates of work done.

Article 9 – Approval Drawing: A detailed drawing of the apparatus will be provided to Calhoun County for approval before construction begins. Upon Calhoun County approval, the finalized drawing will become a part of the total contract.

The drawing will show, but is not limited to, such items as the chassis make and model, major components, location of lights, sirens, all compartment locations and dimensions, special suctions, discharges, etc. The drawing will be a visual interpretation of the apparatus as it is to be supplied.

Article 10 – Extras: Without invalidating the Contract, the Owner may order extra work or make changes by altering, adding to or deducting from the work, the Contract sum being adjusted accordingly, and the consent of the Surety being first obtained where necessary or desirable. All work of the kind bid upon shall be paid for at the price stipulated in the Bid Form, and no claims for any extra work or materials shall be allowed unless the work is ordered in writing by the Owner or the Engineer, acting officially for the Owner, and the price is stated in such order.

Article 11 – Changes in Work: Should the Contractor encounter, or the Owner discover, during the progress of the work conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Technical Specifications, the attention of the Owner shall be called immediately to such conditions. The Owner shall thereupon promptly investigate the conditions, and if it finds that they do so materially differ, the Contract shall be modified, with the written approval by the Owner, to provide for any increase or decrease of costs or difference in time resulting from such conditions. No changes in work shall be made without prior written approval by the Owner.

The Contractor shall proceed with the performance of any changes in the work so ordered by the Owner unless the Contractor believes said change entitles him to a change in Contract price and/or time, in which event the Contractor shall give the Owner written notice thereof within seven days after receipt of the field order and shall not execute the field change pending the execution of a change order unless the change is for accident prevention as cited herein.

Article 12 - Claims for Extra Cost: No claim for extra work or cost shall be allowed, unless the same was done in pursuance of a written order by the Owner, as aforesaid, and the claim presented with the first estimate after the changed or extra work is done. When work is performed under the terms of Article 14 of these General Conditions, the Contractor shall furnish satisfactory bills, payrolls and vouchers covering all items of cost and when requested by the Owner, give the Owner access to accounts relating thereto.

Article 13 – Materials, Services and Facilities: It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, superintendence, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

Article 14 – Proprietary Parts: It is the intention of the of the Owner for the contractor to furnish the apparatus with major parts commonly used by the heavy-duty truck manufactures and open market vendors whereas replacement parts are more readily available at reduced cost. The use of proprietary parts such as but not limited to axles, suspensions, engines, transmissions, frontal air bags, electronic controls, multiplexing systems, seats, etc. may not be acceptable by the Owner.

Article 15 - Right to the Owner to Terminate Contract: In the event that any of the provisions of this Contract are violated, by the Contractor, or by any of his subcontractors, the Owner may serve written notice upon the Contractor and his Surety of his intention to terminate the Contract, such notices to contain the reasons of such intention to terminate the Contract, and unless within ten (10) days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement of correction be made, the Contract shall, upon the expiration of said ten (10) days, cease and terminate.

In the event of any such termination, the Owner shall immediately serve notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and perform the Contract, provided, however, that if the Surety does not commence performance thereof within five (5) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion by contract or by force account at the expense of the Contractor, and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances, and plant as may be on the site of the work and necessary therefore.

Article 16 - Termination for Convenience by the Owner: Upon seven (7) days written notice to the Contractor, the Owner may, without cause and without prejudice to any other right or remedy, terminate this Contract, in whole or in part, for its convenience. In the event of termination in accordance with the above paragraph, the Contractor shall be paid for all Work performed and acceptable to the Owner, and any expense sustained shall be limited to the cost of such Work plus reasonable termination expenses.

1. Termination Provisions: After receipt of written notice of termination from the Owner pursuant to the above paragraphs, the Contractor shall stop work on the date and to the extent specified in the notice of termination, place no further purchase orders or subcontracts for materials, equipment, supplies, services, or facilities except as may be necessary for the completion of such portion of the Work under this Contract not terminated, terminate all purchase orders and subcontracts to the extent that they relate to the performance of the Work terminated by the notice of termination, Assign to the Owner, in the manner, at the times, and to the extent directed by the Owner, all of the rights, title, and interests of the Contractor under the purchase orders and subcontracts so terminated, in which case the Owner shall have the right, at its discretion, to settle or pay any or all claims arising out of the termination of such purchase orders and subcontracts, transfer title and deliver to the Owner, in the manner, at the times, and to the extent directed by the Owner, (i) the fabricated and unfabricated parts, Work in process, completed Work, supplies and other material produced as a part of, or acquired in connection with, the performance of the Work terminated by the notice of termination and (ii) the completed or partially completed property related to the Work.

   Complete performance of such part of the Work as shall not have been terminated by the notice of termination.

   The Contractor acknowledges and agrees that if any court rules that termination by the Owner was a wrongful termination, such action by the Owner shall be deemed a termination for convenience, and the Contractor shall only be entitled to recover legitimate expenses up to the time of termination, and shall not be entitled to fees, costs, expenses, profits, or overhead after the date of termination.

Article 17 – Notices and Service Thereof: Any notice to the Contractor from the Owner relative to any part of this Contract shall be in writing and considered delivered and the service thereof completed, when said notice is posted by registered mail, to the said Contractor at his last given address, or delivered in person to said Contractor or his authorized representative on the work, or

is deposited in the regular United States mail in a sealed, postage prepaid envelope and the receipt thereof is acknowledged by the Contractor.

All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the County Administrator, Calhoun County, 102 Courthouse Dr., Suite 108 St. Matthews, SC 29135. Any notice to or demand upon the Owner shall be sufficiently given if delivered to the office of said County Administrator, or if deposited in the United States mail in a sealed, postage prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to said or to such other representative of the Owner or to such other address as the Owner may subsequently specify in writing to the Contractor for such purposes.

Article 18 – Quantities of Estimate: The estimated quantities of work to be done and materials to be furnished under this Contract shown in any of the documents, including the Bid Form, are given for use in comparing bids, and to indicate approximately the total amount of the contract; and the right is especially reserved, except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this Contract.

Article 19 – Warranty Requirements

1. Warranty – New Product – Commercial Chassis: (7 Years from acceptance of the unit - Bumper to Bumper Warranty)

2. Warranty – Body Structure: The body will be warranted against structural defects for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions shall be supplied for acceptance by Owner.

3. Warranty – Corrosion: The body will be warranted against rust-through or perforation, due to corrosion from within, for a period of ten (10) years. Perforation is defined as a condition in which an actual hole occurs in a sheet metal panel due to rust or corrosion from within. Surface rust or corrosion caused by chips or scratches in the paint is not covered by this warranty.

4. Warranty – Paint: The paint finish will be warranted for a period of seven (7) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions shall be supplied for acceptance by Owner.

5. Warranty – Lettering: The lettering will be warranted for a period of seven (7) years from the date of acceptance of the unit. Warranty – Water Tank: The water tank will warranted by the water tank manufacturer for the “Lifetime” of the unit. A copy of the manufacturer’s warranty shall be supplied to define additional details of the warranty provisions for acceptance by Owner.

6. Warranty – Fire Pump: The fire pump will be warranted for a period of seven (7) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions shall be supplied for acceptance by Owner.

7. Warranty – Heavy Duty Valves: Heavy duty valves will be warranted for a period of seven (7) years from the date of acceptance on the unit. Details of warranty coverage, limitations and exclusions shall be supplied for acceptance by Owner.

Article 20 – Contractor's Obligations: The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper and complete all work required by the Contract within the time herein specified, in accordance with the provisions of this Contract and said Specifications and in accordance with the Plans and Drawings of the work covered by this Contract and any and all supplemental plans and drawings of the work, and in accordance with the directions of the Engineer as given from time to time during the progress of the work. He shall furnish, erect, maintain, and remove such construction plant and such temporary works as may be required. He alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance, or operation. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements, and limitations of the Contract and Specifications, and shall do, carry on, and complete the entire work to the satisfaction of the Engineer and the Owner. The Owner shall not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

Article 21 – "Or Approved Equal" Clause: The mention in the Technical Specifications of equipment or material by brand name or by such specified description of same as is hereby made, is intended to convey to the bidder's understanding, the degree of excellence required. Any article, equipment, or material, which shall conform to the standards and excellence so established, and is of equal merit, strength, durability and appearance to perform the desired function, is deemed eligible for offer as a substitute. The qualifications of the offering shall be judged as to their conformance with these specifications. Any equipment offered other than herein specified shall be subject to a competitive demonstration and evaluation from the Owner.

Article 22 – Prohibited Interests: No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract, or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part hereof. No officer, employee, architect, attorney, engineer, or inspector of, or for, the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar function in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part hereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

Article 23 – South Carolina Illegal Immigration Reform Act: By signing its bid, offer or proposal, Contractor certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the Owner upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply

with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub- subcontractors language requiring the sub-subcontractors to comply with Title 8, Chapter 14.

Article 24- Dispute Resolution: The Contractor and Owner mutually agree by the execution of the construction agreement that all contract disputes shall be settled in Calhoun County, South Carolina

END OF DOCUMENT

Section 8
CDBG CONTRACTING PROVISIONS

8.1 SECTION INCLUDES

A. This Section includes the U. S. Department of Commerce, Community Development Block Grant Program Contracting Provisions, including Contract Special Provisions, Certification Regarding Debarment, Suspension and Ineligibility, and South Carolina Illegal Immigration Contractor Certification

B. If any of these provisions conflict with requirements of the Contract Documents, then the most stringent requirement prevails.

C. There are eighteen (18) pages included in the attached documents, including the cover sheet.

DEPARTMENT OF COMMERCE
GRANTS ADMINISTRATION
COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

CONTRACT SPECIAL PROVISIONS

The following CDBG Contract Special Provisions should be used with all construction contracts, including housing rehabilitation, as applicable, and professional service contracts, where CDBG funds are being used in whole or in part.

CONTRACT SPECIAL PROVISIONS

1. **Definitions:** For purposes of this Contract, the following terms shall have the meanings set forth below:

   (a) "Assistance" means the CDBG grant funds provided, or to be provided, to the Grantee by the State, pursuant to the Grant Award Agreement.

   (b) "CDBG" means Community Development Block Grant.

   (c) "Contract" means the contractual agreement between the Owner and the Contractor to which these Contract Special Provisions have been incorporated and made a part thereof.

   (d) "Contractor" means the contractor whose services are retained pursuant to the Contract.

   (e) "Grantee" means the unit of local government designated as the recipient of the Assistance in the Grant Award and signing the acceptance provision of the Grant Award.

   (f) "HUD" means U.S. Department of Housing and Urban Development, which is the federal agency that awards and has authority over CDBG funding to the State.

   (g) "Owner" means the Grantee or Subrecipient, as applicable.

   (h) "Project" means the project for which the services of the Contractor have been retained pursuant to the Contract which are funded, in whole or in part, with CDBG funds.

   (i) "State" means the State of South Carolina, or that agency, agency division, or Office of State government which has been delegated the responsibility for administering the CDBG program for the State of South Carolina, as appropriate.

   (j) "Subrecipient" means the agent of the unit of local government as designated by an agreement.

   (k) "Labor Surplus Area" means a civil jurisdiction that has an unemployment rate at least 20% above the average unemployment rate for all states, the District of Columbia, and Puerto Rico during the previous two calendar years. The Department of Labor issues the labor surplus area list on a fiscal year basis.

2. **Prime Contractor Responsibilities:** The Contractor is required to assume sole responsibility for the complete effort and enforcement of laws and regulations under this Contract. The Owner will consider the Contractor to be the sole point of contact with regard to contractual matters.

3. **Federal and State Laws:** The Contractor agrees to comply with all CDBG requirements as well as other federal and state laws, regulations, or Executive Orders. The State reserves the right to add or delete terms and conditions of this Contract as may be required by revisions and additions or changes in the requirements, regulations, and laws governing the CDBG Program.

4. **Procurement and Contracting:** In accordance with 24 CFR Part 85.36 (f), the cost plus a percentage of cost and percentage of construction cost methods of contracting shall not be used. This provision shall supersede any conflicting provision in an executed contract document or agreement funded in whole or in part with CDBG funds.

5. **Ownership**: Ownership of all real or personal property, acquired in whole or in part with CDBG funds for use on this Project, shall be vested in the Grantee, unless otherwise authorized by the State. When the Grantee determines that the property is no longer required for the purposes of this Project, the Grantee must notify the State and obtain approval for disposition of the property in accordance with applicable guidelines.

6. **Copyright:** Except as otherwise provided in the terms and conditions of this Contract, the Contractor paid through this Contract is free to copyright any books, publications or other copyrightable materials developed in the course of the Project and under this Contract. However, HUD and the State reserve a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, for Federal government and State purposes:

   (a) the copyright in any work developed under this Contract; and

   (b) any rights of copyright to which a subcontractor purchases ownership with grant support.

   The Federal government's rights and the State's rights identified above must be conveyed to the publisher and the language of the publisher's release form must insure the preservation of these rights.

6. **Reporting Requirements:** The Contractor agrees to complete and submit all reports, in such form and according to such schedule, as may be required by the State or HUD. Further, the Contractor agrees to require any subcontractors to submit reports that may be required and to incorporate such language in its agreements. Failure to meet deadlines with the required information could result in sanctions.

7. **Access to Records:** All records with respect to all matters covered by this Contract shall be made available at any time for audit and inspection by HUD, the State or the Grantee or their representatives upon their request.

8. **Maintenance of Records:** Records for non-expendable property purchased totally or partially with Federal funds must be retained for five years after final close-out of the grant. All other pertinent contract records including financial records, supporting documents and statistical records shall be retained for a minimum of five years after the final close-out

report. However, if any litigation, claim, or audit is started before the expiration of the five year period, then records must be retained for five years after the litigation, claim or audit is resolved.

9. **Confidential Information:** Any reports, information, data, etc., given to, prepared by, or assembled by the Contractor under this Contract, which the Grantee or the State requests to be kept confidential, shall not be made available to any individual or organization by the Contractor without prior written approval of the Grantee or the State, as applicable.

10. **Reporting of Fraudulent Activity:** If at any time during the term of this Contract anyone has reason to believe by whatever means that, under this or any other program administered by the State, a recipient of funds has improperly or fraudulently applied for or received benefits, monies or services pursuant to this Contract or any other contract, such information shall be reported immediately to the appropriate authorities.

11. **Political Activity:** None of the funds, materials, property or services provided directly or indirectly under this Contract shall be used for any partisan political activity, or to further the election or defeat of any candidate for public office or otherwise in violation of the provisions of Section 8-13-765 of the Code of Laws of South Carolina, 1976, as amended.

12. **Conflicts of Interest and Ethical Standards, South Carolina Consolidated Procurement Code:** The following provisions regarding "conflicts of interest" apply to the use and expenditure of CDBG funds by the Grantee and its subrecipients, including the Contractor.

    In the procurement of supplies, equipment, construction and services, the more restrictive conflict of interest provisions of the State of South Carolina Ethics, Government Accountability and Campaign Reform Act of 1991 or of the Contractor shall apply.

    In cases not governed by the above, such as the acquisition and disposition of real property and the provision of CDBG assistance to individuals, businesses and other private entities, the following provisions shall apply.

    Except for eligible administrative or personnel costs, the general rule is that no person who is an employee, agent, consultant, officer, or elected or appointed official of the State or a unit of general local government or any designated public agencies or subrecipient which are receiving CDBG funds who exercise or have exercised any function or responsibilities with respect to CDBG activities assisted herein or are in a position to participate in a decision making process or gain inside information with regard to such activities, may obtain a financial interest or benefit from the activity, or have an interest in any contract, subcontract or agreement with respect thereto, or the proceeds thereunder either for themselves or those with whom they have family or business ties during their tenure or for one year thereafter. Exceptions may be granted by the State on a case by case basis as requested upon full disclosure in writing.

    Should any governmental entity, contractor, subcontractor, employee or official know or perceive any breach of ethical standards or conflict of interest under the CDBG grant awarded to the Grantee or any other CDBG grant, they shall immediately notify in writing the Department of Commerce, Grants Administration, 1201 Main Street, Suite 1600, Columbia, South Carolina, 29201. If the State finds any circumstances that may give rise to

a breach of ethical standards or conflict of interest, under any grant, they shall notify the participating governmental entity and the State Ethics Commission as appropriate. The State may undertake any administrative remedies it deems appropriate, where there is a breach of ethical standards or conflict of interest under the regulations governing the CDBG Program and the State policies.

13. Applicable Law: In addition to the applicable Federal laws and regulations, this Contract is also made under and shall be construed in accordance with the laws of the State. By execution of this Contract, the Contractor agrees to submit to the jurisdiction of the State for all matters arising or to arise hereunder, including but not limited to performance of said Contract and payment of all licenses and taxes of whatever kind or nature applicable hereto.

14. Limitation of Liability: The Contractor will not assert in any legal action by claim or defense, or take the position in any administrative or legal procedures that he is an agent or employee of the Owner. This provision is not applicable to contracts for CDBG administration services where the Contractor is a Council of Government. The State shall not be liable for failure on the part of the Grantee or any other party to perform all work in accordance with all applicable laws and regulations. The Grantee agrees to defend, indemnify, and hold harmless the State from and against all claims, demands, judgments, damages, actions, causes of actions, injuries, administrative orders, consent agreement and orders, liabilities, penalties, costs, and expenses of any kind whatsoever, including, without limitation, claims arising out of loss of life, injury to persons, property, or business or damage to natural resources in connection with the activities of the Grantee and any other third parties in a contractual relationship with the Grantee, or a subsidiary, whether or not occasioned wholly or in part by any condition, accident, or event caused by any act or omission of the State as a result of the Assistance.

15. Legal Services: No attorney-at-law shall be engaged through the use of any funds provided under this Contract in any legal action or proceeding against the State, the Grantee, any local public body or any political subdivision.

16. Contract: If any provision in this Contract shall be held to be invalid or unenforceable, the remaining portions shall remain in effect. In the event such invalid or unenforceable provision is considered an essential element of this Contract, the parties shall promptly negotiate a replacement provision, which addresses the intent of such provision.

17. Amendments: Any changes to this Contract affecting the scope of work of the Project must be approved, in writing, by the Owner and the Contractor and shall be incorporated in writing into this Contract. Any amendments of the original contract must have written approval by the State prior to execution.

18. Termination for Convenience: This Contract may be terminated for convenience in accordance with 24 CFR Part 85.44.

19. Sanctions: If the Contractor fails or refuses to comply with the provisions set forth herein, the State or Owner may take any or all of the following actions: cancel, terminate or suspend in whole or in any part the contract, or refrain from extending any further funds to the Contractor until such time as the Contractor is in full compliance.

20. Subcontracting: If any part of the work covered by this Contract is to be subcontracted, the Contractor shall identify the subcontracting organization and the contractual arrangements

made therewith to the Owner and to the State. All subcontracts must be approved by the Owner and the State to insure they are not debarred or suspended by the Federal or State governments and to insure the Owner and the State understand the arrangements.

21. **Subcontracting with Small and Minority Firms, Women's Business Enterprise and Labor Surplus Areas:** It is national policy to award a fair share of contracts to disadvantaged business enterprises (DBEs), small business enterprises (SBEs), minority business enterprises (MBEs) and women's business enterprises(WBEs). Accordingly, affirmative steps must be taken to assure that DBEs, SBEs, MBEs and WBEs are utilized when possible as sources of supplies, equipment, construction and services. Affirmative steps shall include the following:

    (a) Including qualified DBEs, SBEs, MBEs and WBEs on solicitation lists;

    (b) Assuring that DBEs, SBEs, MBEs and WBEs are solicited whenever they are potential sources;

    (c) Whenever economically feasible, dividing total requirements into smaller tasks or quantities so as to permit maximum participation by DBEs, SBEs, MBEs and WBEs;

    (d) Where the requirement permits, establishing delivery schedules which will encourage participation by DBEs, SBEs, MBEs and WBEs;

    (e) Using the services and assistance of the Small Business Administration, Minority Business Development Agency, the State Office of Small and Minority Business Assistance, the U.S. Department of Commerce and the Community Services Administration as required; and

    (f) Requiring the subcontractor, if any, to take the affirmative actions outlined in (1) – (5) above.

22. **Debarment Certification:** The Contractor must comply with Executive Order 11246 regarding Federal debarment and suspension regulations prior to entering into a financial agreement for any transaction as outlined below.

    (a) Any procurement contract for goods and services, regardless of type, expected to equal or exceed the Federal procurement small purchase threshold (which is $100,000 and is cumulative amount from all federal funding sources).

    (b)Any procurement contract for goods and services, regardless of amount, under which the Contractor will have a critical influence on or substantive control over the transaction.

    In addition, no contract may be awarded to any contractors who are ineligible to receive contracts under any applicable regulations of the State.

23. **South Carolina Illegal Immigration Reform Act:** The Owner and the Contractor are required to comply with the South Carolina Illegal Immigration Reform Act (signed June 4, 2008) requiring verification of lawful presence in the United States of any alien eighteen years of age or older who has applied for state or local public benefits, as defined in 8 U.S.C. Section 1621, or for federal public benefits, as defined in U.S.C. Section 1611.

24. **Equal Employment Opportunity**: The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the State.

In carrying out the Project, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor must take affirmative action to insure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action 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 shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State setting forth the provisions of this non-discrimination clause. The Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin. The Contractor will, in all solicitations or advertisements for employees by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin. The Contractor shall incorporate the foregoing requirements of this paragraph in all of its subcontracts for the Project unless exempted by rules, regulations, or orders of the State issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor.

The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the State advising the said labor union or workers' representatives of the Contractor's commitment under this Section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the State, or pursuant thereto, and will permit access to its books, records, and accounts by HUD and the State for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

In the event of the Contractor's noncompliance with the non-discrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further State government contracts or federally assisted construction contract procedures authorized in Executive Order 11246 of September 24, 1965, or by rules, regulations, or orders of the State, or as otherwise provided by law.

25. Age Discrimination: In accordance with 45 CFR, Parts 90 and 91, the Contractor agrees there shall be no bias or age discrimination as to benefits and participation under this Contract.

26. Section 109 of the Housing and Community Development Act of 1974: No person in the United States shall on the grounds of race, color, national origin or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under the CDBG program of the State.

27. Section 504 of the Rehabilitation Act of 1973, as amended: The Contractor agrees that no otherwise qualified individual with disabilities shall, solely by reason of his disability, be

denied the benefits, or be subjected to discrimination including discrimination in employment, any program or activity that receives the benefits from the Assistance.

28. <u>Section 3, Compliance and Provision of Training, Employment and Business Opportunities:</u> The work to be performed under this Contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, (12 USC § 1701u). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3 shall, to the greatest extent feasible be directed to low and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

The parties to this said Contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the 24 CFR Part 135 regulations.

The contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions; the qualifications for each; and the name and location of person(s) taking applications for each of the positions; and the anticipated date the work shall begin.The Contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.

The Contractor will certify that any vacant employment positions including training positions, that are filled (1) after the Contractor is selected but before this Contract has been executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR Part 135.

The Contractor agrees to submit such reports as required to document compliance with 24 CFR Part 135. Noncompliance with the regulations in 24 CFR Part 135 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.

29. <u>Lead-Based Paint:</u> The construction or rehabilitation of residential structures with any portion of the Assistance is subject to the HUD Lead-Based Paint regulations found at 24 CFR Part 35. Any grants or loans made by the Grantee for the rehabilitation of residential structures with any portion of the Assistance shall be made subject to the provisions for the elimination of lead-base paint hazards under subpart B of said regulations, and the Grantee shall be responsible for the inspections and certifications required under Section 35.14(f) thereof.

30.<u>Compliance with Air and Water Acts:</u> (Applicable to construction contracts and related subcontracts exceeding $100,000) This Contract is subject to the requirements of the Clean Air Act, as amended, 42 USC § 7401 et seq., the Federal Water Pollution Control Act (Clean Water Act), as amended, 33 USC § 1251 et seq., and the regulations of the Environmental Protection Agency with respect to 40 CFR Part 15, as amended from time to time, and the South Carolina Stormwater Management and Sediment Reduction Act. In particular, the following are required:

(a) A stipulation by the Contractor or subcontractor that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the List of Violating Facilities, issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR § 15.20.

(b) Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 USC § 7414) and Section 308 of the Federal Water Pollution Control Act, as amended (33 USC § 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Sections 114 and 308, and all regulations and guidelines issued thereunder.

(c) A stipulation that as a condition of award of contract prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract under consideration is to be listed on the EPA list of Violating Facilities.

(d) Agreement by the Contractor that the Contractor will include or cause to be included the criteria and requirements in these subparagraphs (1) through (4), in every nonexempt subcontract and requiring that the Contractor will take such action as the State may direct as a means of enforcing such provisions.

In no event shall any amount of the Assistance be utilized with respect to a facility which has given rise to a conviction under section 113(c)(1) of the Clean Air Act or Section 309(c) of the Federal Water Pollution Control Act.

31.<u>Federal Labor Standards Provisions</u>: *(Applicable to construction contracts in excess of $2,000 or residential rehabilitation contracts involving more than eight units)*

The Project or program to which the construction work covered by this Contract pertains is being assisted by the United States of America and the Federal Labor Standards Provisions as set forth on Attachment 1 are included in this Contract pursuant to the provisions applicable to such Federal assistance. These provisions must be complied with or sanctions will be instituted.

Attachment 1

U.S. Department of Housing and Urban Development, Office of Labor Relations form HUD-4010 (07/2003) ref. Handbook 1344.1

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached thereto and made a part thereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section l(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5 (a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification of the time actually work therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification an wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed I the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so

advise HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1214-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federal-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension or any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for an on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three

years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section l (b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions make and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section l(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment of provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices and trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) the contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set our accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget Under OMB Control Number 1215-0129.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays for supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR 5.5 (a)(3)(i) and that such information is correct and complete'

(2) That each laborer or mechanic (including each apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) **Apprentices**. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment Training Administration, Office of Apprenticeship Training, Employer and Training Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the contractor as to his entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as state above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ration permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every Trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 of this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause

include disputes between the contractor (or any if its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provided in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration….. makes, utters or publishes any statement knowing the same to be false….. shall be fined not more than $5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable only where the amount of the prime contract exceeds $100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime Requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violations of the clause set forth in subparagraph (1) of this paragraph, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

(3) **Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the

Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract, or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2)of this paragraph.

(4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable only where the amount of the prime contract exceeds $100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to this health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et. seq.

(3) The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSACTIONS 11/96

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 24 CFR Part 85, Section 85.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Grant Number: 4-CE-15-001 **Name of Participant:** _____

Address of Participant: _____

Name and Title of Authorized Representative	Signature	Date

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

SOUTH CAROLINA ILLEGAL IMMIGRATION REFORM ACT

CONTRACTOR CERTIFICATION

In accordance with the requirements of the South Carolina Illegal Immigration Reform Act, _____ ("Contractor") hereby certifies that it is currently in compliance with the requirements of Title 8, Chapter 14 of the S.C. Code Annotated and will remain in compliance with such requirements throughout the term of its contract with Calhoun County ("Owner").

Contractor hereby acknowledges that in order to comply with requirements of S.C. Code Annotated Section 8-14-20(B), it will:

1. Register and participate in the federal work authorization program (E-Verify) to verify the employment authorization of all new employees; and require agreement from its subcontractors, and through the subcontractors, the sub-subcontractors, to register and participate in the federal verification the employment authorization of all new employees.

OR

2. Employ only workers who:

    a. Possess a valid South Carolina driver's license or identification card issued by the South Carolina Department of Motor Vehicles; or

    b. are eligible to obtain a South Carolina driver's license or identification card in that they meet the requirements set forth in S.C. Code Annotated Sections 56-1-40 through 56-1-90; or

    c. possess a valid driver's license or identification card from another state where the license requirements are at least as strict as those in South Carolina, as determined by the South Carolina Department of Motor Vehicles

Contractor agrees to provide to Owner any documentation required to establish the applicability of the South Carolina Illegal Immigration Reform Act to the Contractor, subcontractor, or sub-subcontractor. Contractor further agrees that it will provide Owner with any documentation required to establish that the Contractor and any subcontractors or sub-subcontractors are in compliance with the requirements of Title 8, Chapter 14 of the S.C. Code Annotated.

Date:_____ By:_____

Title:_____

Technical Specifications

Calhoun County
Jumper Station VFD

3-17-16

2500 Gallon Tanker

9.1 SECTION INCLUDES

A. This Section includes the Technical Specifications for the Jumper Station VFD 2500 Gallon Tanker Truck.

B. This Section must be returned in its entirety as a part of the submitted bid. Each bidder must indicate his by checking "Yes" or No' in the appropraite check box for each section. A "Yes" indication shall mean full compliance; a "No" indication shall mean an exception is being taken. Any deviation from the specification, no matter how small, must be so annotated. All exceptions must be fully explained on a sperate page, titled "Exceptions to Specifications", giving reference to the page number and section name where the exception is being taken. Please refer to Section 2 (Instruction to Bidders) 2.7 & 2.8 for additional information.

C. There are sixty six (66) pages included in the attached documents, including this cover sheet.

Bidder Complies	
Yes	No

JUMPER STATION VFD 2500 GALLON TANKER

Questions or concerns pertaining to these specifications can be answered by contacting the following Calhoun County representative(s):

Boyce Till
(803) 874-2435
Btill@calhounty.sc.gov

GENERAL INFORMATION ☐ ☐

The proposed apparatus will be constructed to withstand the severe and continuous use encountered during emergency firefighting services. The apparatus will be of the latest type, carefully designed and constructed with due consideration to the nature and distribution of the load to be sustained.

This proposal details the general design criteria of cab and chassis components, aerial device (if applicable), fire pump and related components (if applicable), water tank (if applicable), fire body, electrical components, painting, and equipment. All items of these proposal specifications will conform to the National Fire Protection Association Pamphlet No. 1901, latest edition.

VEHICLE RECORDS ☐ ☐

The successful bidder will be responsible for preparing and maintaining a record file of parts at the factory for a minimum of twenty (20) years. The file will contain copies of any and all reported deficiencies, all replacement parts required to maintain the apparatus, and original purchase documents including specifications, contract, invoices, incomplete chassis certificates, quality control reports and final delivery acceptance documents. The Owner will have access to any and all documents contained in this file upon official written request.

GENERAL CONSTRUCTION ☐ ☐

The complete apparatus, assemblies, subassemblies, component parts, etc., shall be designed and constructed with the due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the apparatus is to be subject. All parts of the apparatus shall be designed with a factor of safety, which is equal to or greater than that which is considered standard and acceptable for this class of equipment in firefighting service. All parts of the apparatus shall be strong enough to withstand general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment and repair. Bidder's specifications must meet the minimum requirements of N.F.P.A. Pamphlet #1901;

Bidder Complies	
Yes	No

Underwriters Laboratories, Inc; and all State and Federal Department of Transportation vehicle regulations at time of sale of unit.

The apparatus shall be designed and constructed, and the equipment so mounted, with due consideration to distribution of the load between front and rear axles that all specified equipment and firefighters shall be carried without overloading or injuring the apparatus.

To protect the interest of the Owner, the Bidder guarantees that the equipment offered is standard new equipment, latest model of regular stock product, with parts regularly used for the type of equipment offered; also, that no attachment or part has been substituted or applied contrary to the manufacturer's recommendations and standard practices.

NON-COLLUSIVE BIDDING CERTIFICATION ☐ ☐

By submission of this bid, each bidder and each person signing on behalf of any bidder, certifies, and I the case of a joint bid, each party thereof certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief:

- The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for purpose of restricting competition, as to any matter relating to sale price with any other bidder or any competitor.
- Unless otherwise required by law, the prices that have been quoted in this bid have not been knowingly disclosed by the bidder and shall not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
- No attempt has been made by the bidder to induce any other person, partnership, or corporation to submit or not to submit a bid for the purpose of restricting competition.
- That all requirements of the law including amendatory provisions as to con-collusive bidding have been complied with.

DELIVERY TIME ☐ ☐

The Apparatus Manufacturer will deliver the apparatus within the minimum number of calendar days listed below, starting from the date the contract agreement is signed and accepted by the purchaser.

Delivery Time: 275 Calendar Days

	Bidder Complies	
	Yes	No

EXCEPTIONS TO SPECIFICATIONS

Exceptions shall be referenced to the page number and section name of these specifications where the items appears. Deviations, no matter how slight, shall be clearly explained on a seperate sheet, in the bid sequence, citing the page number and section name from the technical specifications, providing an explanation of how the deviation meets or exceeds the specifications, and why it is neccessary, and shall be entitled "Exception To Specifications". Drawings, photographs, and technical information about the exception shall be included as necessary. Any exceptions may be considered during the evaluation process, and the decision shall be final.

Proposals taking total exceptions to specification shall not be accepted.

"OR APPROVED EQUAL CLAUSE"

Brand names or model numbers have been specified for some items, followed by "or approved equal". These have been carefully selected becasue of their reliability and availability for replacement locally. In order to be most responsive, items named, or an item "equal to" the particular item specified by brand name or model, should be contained in the bid proposal. All deviations, no matter how slight, shall be clearly explained on a seperate sheet, in the bid sequence, citing the page number and section name from the technical specifications, providing an explanation of how the deviation meets or exceeds the specifications, and why it is neccessary, and shall be entitled "Exception To Specifications". The Owner reserves the right to require a bidder to provide proof in each case that a substituted item is equal to that specified. It is the bidder's responsibility to prove to the Owner that an item bis as "equal to" a particular specified item, is truly of equal quality, design, and function. The Owner maintains the right to make a final decision as to the acceptability of an item bid as "equal to" a particular specified item. Bids not submitted in accordance with these instructions shall be rejected.

REQUIRED PROPOSAL BLUEPRINT

A scale drawing of the specific apparatus being proposed shall be submitted WITH THE BID. Drawings of similar units or demo units shall not be permitted. Bidders should be clear that this provision is requiring a SCALE drawing of the truck which is actually being bid. The drawing shall be done at the manufacturer's facility by the manufacturer's engineering department in order to guarantee the accuracy of the drawing. Failure to comply with this requirement shall be grounds for rejection of the bid.

FIRE APPARATUS DOCUMENTATION

The contractor shall supply, at the time of delivery, at least one (1) copy of the following documents:

The manufacturer's record of apparatus construction details, including the following information:

- Owners name and address
- Apparatus manufacturer, model and serial number

Bidder Complies	
Yes	No

- Chassis make, model and serial number
- Front tire size and total rated capacity in pounds
- Rear tire size and total rated capacity in pounds
- Chassis weight distribution in pounds with water and manufacturer mounted equipment, front and rear
- Engine make, model, serial number, rate horsepower, rated speed and governed speed
- Type of fuels and fuel tank capacity
- Electrical system voltage and alternator output in amps
- Battery make, model and total capacity in cold crank amps (CCA)
- Transmission make, model and serial number. If so equipped chassis transmission PTO(s) make, model and gear ratio
- If applicable, Pump make, model, rate capacity in gallons per minute (liters per minute where applicable) and serial number
- If applicable, Pump transmission make, model, serial number and gear ratio
- If applicable, Auxiliary pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number
- Water tank certified capacity in gallons or liters
- Paint manufacturer and paint number(s)
- Company name and signature of responsible company representative
- Certification of slip resistance of all stepping, standing and walking surfaces

If the apparatus has a fire pump or an industrial supply pump, the pump manufacturer's certification of suction capability.

If the apparatus has a fire pump or an industrial supply pump, a copy of the apparatus manufacturer's approval for stationary pumping applications.

If the apparatus has a fire pump or an industrial supply pump, the engine manufacture's certified brake horsepower curve for the engineer furnished, showing the maximum governed speed.

If the apparatus has a fire pump or an industrial supply pump, the pump manufactures certification of hydrostatic test.

If the apparatus has fire pump or an industrial supply pump, the Underwriters Laboratory certification of inspection and test for the fire pump.

If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source.

Weight documents from certified scale – showing actual loading on the front axle, rear axle(s) and overall vehicle (with the water tank full but without personnel, equipment and hose) shall be supplied with the complete vehicle to determine compliance with NHPA-1901.

Bidder Complies	
Yes	No

Written load analysis and results of electrical performance tests.

If the apparatus is equipped with a water tank, the certification of water tank capacity by the tank manufacturer.

The chassis shall be certified by the apparatus manufacturer as conforming to all applicable Federal Motor Vehicle Safety Standards in effect at the date of contract. This shall be attested to by the attachment of a FMVSS certification label on the vehicle by the contractor who shall be recognized as the responsible final manufacturer.

FAMA COMPLIANCE ☐ ☐

The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA).

QUALITY MANAGEMENT ☐ ☐

The manufacturer shall operate a Quality Management System that is certified to ISO 9001 by an organization that is accredited by the ANSI-ASQ National Accreditation Board (ANAB). This type of business management system shall allow the manufacturer to monitor processes to ensure they are effective; keep adequate records; check output for defects, with appropriate and corrective action where necessary; regularly review individual processes and the quality system itself for effectiveness; and facilitate continual improvement.

MATERIAL AND WORKMANSHIP ☐ ☐

All equipment furnished shall be guaranteed to be new and of current manufacture, to meet all requirements of these specifications.

SERVICE CENTER AND PARTS DEPOT ☐ ☐

The successful bidder shall have an authorized service center, with a staff of factory-trained mechanics, well versed in all aspects of service for all major components, of the apparatus within the state of South Carolina. In addition, the bidder shall maintain a separate service facility at the manufacturing site, in order to satisfy the need for possible major emergency service work.

SERVICE CENTER INFORMATION ☐ ☐

The center must provide a full time staff of experienced technicians with all of the required equipment to provide modern, accurate and efficient service. Bidder's shall state the size of their shop and office area in square feet. They shall state the location of the facility and

	Bidder Complies	
	Yes	No

provide photos of both the exterior and interior of the center. Accuracy of the description of the service center is of great importance.

TECHNICAL INFORMATION ☐ ☐

Bidder shall furnish free of charge, upon request, technical information, graphs, charts, photographs, engineering diagrams, steering geometry, drive train certifications, instruction guides, or documentation as requested to show that the equipment offered fully complies with these specifications.

PROPERTARY PARTS ☐ ☐

It is the intention of the Owner for all bidders to furnish the apparatus with major parts commonly used by the heavy-duty truck manufacturers and open market vendors whereas replacement parts are more readily available and at reduced cost. The use of proprietary parts such as but not limited to axles, suspensions, engines, transmissions, frontal air bags, electronic controls, multiplexing systems, seats, etc. may not be acceptable by the Owner.

STEPPING, STANDING, & WALKING SURFACES ☐ ☐

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be Alcoa No-Slip type, *or approved equal*. This material shall be a minimum 3/16 (0.1875”) thickness. Upon request by the Owner, the manufacturer shall supply proof of compliance with this requirement. All vertical surfaces on the body, which incorporate aluminum tread plate material, will utilize the same material pattern to provide a consistent overall appearance.

APPROVAL DRAWING ☐ ☐

A detailed drawing of the apparatus will be provided to Calhoun County & Calhoun County Rural Fire Commission for approval before construction begins. A copy of this drawing will also be provided to the manufacturer's representative. Upon Calhoun County and Calhoun County Rural Fire Commission approval, the finalized drawing will become a part of the total contract.

The drawing will show, but is not limited to, such items as the chassis make and model, major components, location of lights, sirens, all compartment locations and dimensions, special suctions, discharges, etc. The drawing will be a visual interpretation of the apparatus as it is to be supplied.

Bidder Complies	
Yes	No

UNDERWITERS LABORATORIES, INC. (UL) EXAMINATION AND TEST PROPOSAL

If required by the specific chapters of NFPA-1901, the proposed unit shall be tested and certified by Underwriters Laboratories Inc. (UL). UL is recognized worldwide as a leading third party product safety certification organization for over 100 years. UL has served on National Fire Protection Association (NFPA) technical committees for over thirty years.

INDEPENDENT TESTING ORGANIZATION QUALIFICATIONS

- UL is a nationally recognized testing laboratory recognized by OSHA.
- UL complies with the American Society for Testing and Materials (ASTM) Standard ASTM E543 "Determining the Qualifications for Nondestructive Testing Agencies."
- UL has more than 40 years of automotive fire apparatus safety testing experience and 16 years of factory aerial device testing and Certification experience. UL has more than 100 years of experience developing and implementing product safety standards.
- UL does not represent, is not associated with, nor is in the manufacture or repair of automotive fire apparatus.
- All test work for fire pumps outlined in NFPA 1901 shall be conducted.
- UL has included a list of all factory aerial device manufactures for whom testing is currently being conducted on a regular basis.
- UL carries ten million dollars in excess liability insurance for bodily injury and property damage combined.

UL provides the manufacturer a complete written examination and test report for each inspection performed at the manufacturer's facility. This report specifies the points of inspection and results of such examinations and tests.

The UL inspectors performing the test work on the units are certified to Level II in the required NDT methods, under the requirements outlined in ANST document CP-189.

The apparatus manufacturer shall designate, in writing, who is qualified to witness and certify these test results.

Prior to submittal to the automotive fire apparatus manufacturer, the final Report shall be reviewed by the Supervisor of Fire Equipment Services and a Registered Professional Engineer, both of whom are directly involved with the aerial device certification program at UL.

When the unit successfully meets all the requirements outlined in NFPA 1901, 2009 Edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with NFPA-1901.

Bidder Complies

	Yes	No
PAINT PERFORMANCE CERTIFICATION	☐	☐

The proposed apparatus meets or exceeds the required Commercial Vehicle Paint Performance Standards.

	Yes	No
VEHICLE FLUIDS PLATE	☐	☐

As required by NFPA-1901, The Apparatus Manufacture will affix a permanent plate in the driver's compartment specifying the quantity and type of the following fluids used in the vehicle:

A permanent plate in the driving compartment will specify the quantity and type of the following fluids used in the vehicle:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Pump transmission lubrication fluid
- Pump primer fluid
- Drive axle(s) lubrication fluid
- Air-conditioning refrigerant
- Air-conditioning lubrication oil
- Power steering fluid
- Cab tilt mechanism
- Transfer case fluid

	Yes	No
PRINCIPAL APPARATUS DIMENSIONS & G.V.W.R.	☐	☐

The principal dimensions of the completed apparatus will not exceed the following maximum acceptable dimensions:

	Yes	No
PROPOSED DIMENSIONS:	☐	☐

- OVERALL LENGTH: 329"
- OVERALL WIDTH: 102 1/8"
- OVERALL HEIGHT: 104.5"
- WHEELBASE: 172.1/4"

The axle and total weight ratings of the completed apparatus will not be less than the following minimum acceptable weight ratings:

- MINIMUM FRONT G.A.W.R.: 14,600 lbs.
  MINIMUM REAR G.A.W.R.: 40,000 lbs.
- MINIMUM TOTAL G.V.W.R.: 54,600 lbs.

Bidder Complies	
Yes	No

GENERAL APPARATUS DESCRIPTION "MOBILE WATER SUPPLY" ☐ ☐

The unit shall be designed to conform fully to the "Mobile Water Supply Fire Apparatus" requirements as stated in the NFPA 1901 Standard (2009 Revision), which shall include the following required chapters as stated in this revision:

Chapter 1 Administration
Chapter 2 Referenced Publications
Chapter 3 Definitions
Chapter 4 General Requirements
Chapter 7 Mobile Water Supply Fire Apparatus
Chapter 12 Chassis and Vehicle Components
Chapter 13 Low Voltage Electrical Systems and Warning Devices
Chapter 14 Driving and Crew Areas
Chapter 15 Body, Compartments and Equipment Mounting
Chapter 18 Water Tanks

CAB SAFETY SIGNS ☐ ☐

The following safety signs shall be provided in the cab:

- A label displaying the maximum number of personnel the vehicle is designed to carry shall be visible to the driver.
- “Occupants will be seated and belted when apparatus is in motion” signs shall be visible from each seat.
- “Do Not Move Apparatus When Light Is On” sign adjacent to the warning light indicating a hazard if the apparatus is moved (as described in subsequent section).
- A label displaying the height, length, and GVWR of the vehicle shall be visible to driver.
- This label shall indicate that the fire department will revise the dimension if vehicle height changes while vehicle is in service.

CHASSIS DATA LABELS ☐ ☐

The following information shall be on labels affixed to the vehicle:

Fluid Data

- Engine Oil
- Engine Coolant
- Chassis Transmission Fluid
- Pump Transmission Lubrication Fluid
- Pump Primer Fluid (if applicable)

Bidder Complies	
Yes	No

- Drive Axle(s) Lubrication Fluid
- Air Conditioning Refrigerant
- Air Conditioning Lubrication Oil
- Power Steering Fluid
- Cab Tilt Mechanism Fluid
- Transfer Case Fluid (if applicable)
- Equipment Rack Fluid (if applicable)
- Air Compressor System Lubricant
- Generator System Lubricant (if applicable)
- Front Tire Cold Pressure
- Rear Tire Cold Pressure
- Aerial Hydraulic Fluid (if applicable)
- Maximum Tire Speed Rating

Chassis Data

- Chassis Manufacturer
- Production Number
- Year Built
- Month Manufactured
- Vehicle Identification Number

Manufacturers weight certification:

- Gross Vehicle (or Combination) Weight Rating (GVWR or GCWR)
- Gross Axle Weight Rating, Front
- Gross Axle Weight Rating, Rear

2500 Gallon Tanker
Technical Specifications

		Bidder Complies	
		Yes	No
Chasis		☐	☐
001-172	M2 106 CONVENTIONAL CHASSIS, *OR APPROVED EQUAL*		
004-216	2016 MODEL YEAR SPECIFIED		
002-004	SET BACK AXLE - TRUCK		
019-002	STRAIGHT TRUCK PROVISION		
003-001	LH PRIMARY STEERING LOCATION		
General Service		☐	☐
AA1-002	TRUCK CONFIGURATION		
AA6-001	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
A85-020	FIRE SERVICE		
A84-1EV	EMERGENCY VEHICLES BUSINESS SEGMENT		
AA4-002	LIQUID BULK COMMODITY		
AA5-002	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS		
AB1-008	MAXIMUM 8% EXPECTED GRADE		
AB5-001	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
995-091	MEDIUM TRUCK WARRANTY		
A66-99D	EXPECTED FRONT AXLE(S) LOAD : 14000.0 lbs		
A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD : 40000.0 lbs		
A63-99D	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 44000.0 lbs		
Truck Service		☐	☐
AA3-003	TANK BODY		
A88-99D	EXPECTED TRUCK BODY LENGTH : 190 inches		
AF7-99D	EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES : 32.0 in		
Engine		☐	☐
101-2XM	CUM ISL 350 HP @ 2000 RPM, 2200 GOV RPM, 1000 LB/FT @ 1400 RPM, *OR APPROVED EQUAL*		
Electronic Parameters		☐	☐
79A-064	64 MPH ROAD SPEED LIMIT		
79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT		
79K-011	PTO MODE ENGINE RPM LIMIT - 1400 RPM		
79P-002	PTO RPM WITH CRUISE SET SWITCH - 700 RPM		
79Q-003	PTO RPM WITH CRUISE RESUME SWITCH - 800 RPM		
79S-001	PTO MODE CANCEL VEHICLE SPEED - 5 MPH		
79U-007	PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND		
80G-002	PTO MINIMUM RPM - 700		

		Bidder Complies	
		Yes	No
80J-002	REGEN INHIBIT SPEED THRESHOLD - 5 MPH		
Engine Equipment		☐	☐
99C-015	2015 ONBOARD DIAGNOSTICS/2010 EPA/CARB/GHG14		
99D-012	2008 CARB EMISSION CERTIFICATION - EXEMPTED VEHICLE; NO CLEAN IDLE LABEL REQUIRED		
13E-001	STANDARD OIL PAN		
105-001	ENGINE MOUNTED OIL CHECK AND FILL		
133-004	ONE PIECE VALVE COVER		
014-1BX	SIDE OF HOOD AIR INTAKE WITH NFPA COMPLIANT EMBER SCREEN AND FIRE RETARDANT DONALSDON AIR CLEANER, *OR APPROVED EQUAL*		
124-1CE	LN 12V 320 AMP 4962PA*, OR APPROVED EQUAL,* PAD MOUNT ALTERNATOR		
292-058	(3) ALLIANCE MODEL 1031 , GROUP 31, *OR APPROVED EQUAL* 12 VOLT MAINTENANCE FREE 2280 CCA THREADED STUD BATTERIES,		
290-017	BATTERY BOX FRAME MOUNTED		
281-001	STANDARD BATTERY JUMPERS		
282-003	SINGLE BATTERY BOX FRAME MOUNTED LH SIDE BACK OF CAB ,		
291-017	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
289-001	NON-POLISHED BATTERY BOX COVER		
33M-001	AUXILIARY POWER NET DISTRIBUTION BLOCK FOR BODY BUILDER USE		
295-029	POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER		
107-032	CUMMINS TURBOCHARGED, *OR APPROVED EQUAL*, 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE,		
108-002	STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR		
131-013	AIR COMPRESSOR DISCHARGE LINE		
152-039	GVG, FIRE AND EMERGENCY SERVICE VEHICLES ENGINE WARNING		
128-1AR	CUMMINS EXHAUST BRAKE, *OR APPROVED EQUAL*, INTEGRAL WITH VARIABLE GEOMETRY TURBO WITH ON/OFF DASH SWITCH, ACTIVATES STOP LAMPS		
016-1C3	RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH HORIZONTAL TAILPIPE		
28F-002	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH		
239-001	STANDARD EXHAUST SYSTEM LENGTH		
237-052	RH STANDARD HORIZONTAL TAILPIPE		
23U-001	6 GALLON DIESEL EXHAUST FLUID TANK		

		Bidder Complies	
		Yes	No
30N-003	100 PERCENT DIESEL EXHAUST FLUID FILL		
43X-002	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
23Y-001	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING		
43Y-001	STANDARD DIESEL EXHAUST FLUID TANK CAP		
273-018	HORTON DRIVEMASTER, *OR APPROVED EQUAL*, ON/OFF FAN DRIVE, OR		
276-001	AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED		
110-003	CUMMINS, *OR APPROVED EQUAL*, SPIN ON FUEL FILTER,		
118-008	COMBINATION FULL FLOW/BYPASS OIL FILTER		
266-013	1100 SQUARE INCH ALUMINUM RADIATOR		
103-004	ANTIFREEZE TO -34F, NOAT EXTENDED LIFE COOLANT		
171-007	GATES BLUE STRIPE, *OR APPROVED EQUAL*, COOLANT HOSES,		
172-001	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES		
270-008	AUXILIARY ENGINE COOLING USING WATER FROM FIRE PUMP		
168-002	LOWER RADIATOR GUARD		
138-011	PHILLIPS-TERMO, *OR APPROVED EQUAL*, 1000 WATT/115 VOLT BLOCK HEATER,		
140-053	BLACK PLASTIC ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR		
134-001	ALUMINUM FLYWHEEL HOUSING		
132-004	ELECTRIC GRID AIR INTAKE WARMER		
155-058	DELCO, *OR APPROVED EQUAL*, 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH		
Transmission		☐	☐
342-1KD	ALLISON 3000, *OR APPROVED EQUAL*, EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION		
Transmission Equipment		☐	☐
343-331	ALLISON VOCATIONAL PACKAGE 198 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES, *OR APPROVED EQUAL*, WITH VOCATIONAL MODEL EVS,		
84B-003	ALLISON VOCATIONAL RATING FOR FIRE TRUCK/EMERGENCY VEHICLE APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES, *OR APPROVED EQUAL*		
84C-023	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY, *OR APPROVED EQUAL*		
84D-023	SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY, *OR APPROVED EQUAL*		
84N-000	NEUTRAL AT STOP - DISABLED, FUELSENSE - DISABLED		

		Bidder Complies	
		Yes	No
353-023	VEHICLE INTERFACE WIRING WITH BODY BUILDER CONNECTOR MOUNTED END OF FRAME, NO BLUNT CUTS		
34C-001	ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED		
362-035	CUSTOMER INSTALLED CHELSEA 277 SERIES, *OR APPROVED EQUAL*, PTO		
363-001	PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION		
341-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		
345-003	PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED		
97G-004	TRANSMISSION PROGNOSTICS - ENABLED 2013		
370-015	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK		
346-003	TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK		
35T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		
Front Axle and Equipment		☐	☐
400-1A8	DETROIT DA-F-14.7-3 14,700#, *OR APPROVED EQUAL*, FF1 71.5 KPI/3.74 DROP SINGLE FRONT AXLE,		
402-049	MERITOR 16.5X5 Q+ , *OR APPROVED EQUAL*, CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES,		
403-026	FIRE AND EMERGENCY SEVERE SERVICE, NON-ASBESTOS FRONT LINING		
419-023	CONMET, *OR APPROVED EQUAL*, CAST IRON FRONT BRAKE DRUMS		
409-021	SKF SCOTSEAL PLUS XL, , *OR APPROVED EQUAL*, FRONT OIL SEALS		
408-001	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL		
416-022	STANDARD SPINDLE NUTS FOR ALL AXLES		
405-002	MERITOR, *OR APPROVED EQUAL,* AUTOMATIC FRONT SLACK ADJUSTERS		
536-012	TRW TAS-85, *OR APPROVED EQUAL*, POWER STEERING		
539-003	POWER STEERING PUMP		
534-015	2 QUART SEE THROUGH POWER STEERING RESERVOIR		
40T-002	SYNTHETIC 75W-90 FRONT AXLE LUBE		
Front Suspension		☐	☐
620-010	14,600# TAPERLEAF FRONT SUSPENSION, *OR APPROVED EQUAL*		
619-005	MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION		
410-001	FRONT SHOCK ABSORBERS		

		Bidder Complies	
		Yes	No
Rear Axle and Equipment		☐	☐
420-1K3	14X 40,000# R-SERIES TANDEM REAR AXLE, *OR APPROVED EQUAL*		
421-529	5.29 REAR AXLE RATIO		
424-003	IRON REAR AXLE CARRIER WITH OPTIONAL HEAVY DUTY AXLE HOUSING		
386-074	MXL 176T MERITOR, *OR APPROVED EQUAL*, EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES		
388-076	MXL 17N MERITOR, *OR APPROVED EQUAL*, EXTENDED LUBE INTERAXLE DRIVELINE WITH FULL ROUND YOKES		
452-006	DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES		
878-023	(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD-REAR AND REAR-REAR AXLE VALVE		
87A-002	BUZZER AND BLINKING LAMP WITH EACH MODE SWITCH, INTERAXLE UNLOCK DEFAULT WITH IGNITION OFF		
87B-004	BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE <5 MPH		
423-020	MERITOR 16.5X7 Q+ , *OR APPROVED EQUAL*, CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES		
433-025	FIRE AND EMERGENCY SEVERE SERVICE NON-ASBESTOS REAR BRAKE LINING		
434-003	STANDARD BRAKE CHAMBER LOCATION		
451-023	CONMNET , *OR APPROVED EQUAL*, CAST IRON REAR BRAKE DRUMS		
440-021	SKF SCOTSEAL PLUS, *OR APPROVED EQUAL*, XL REAR OIL SEALS		
426-1B3	BENDIX EVERSURE LONGSTROKE, *OR APPROVED EQUAL*, 2-DRIVE AXLES SPRING PARKING CHAMBERS		
428-003	HALDEX, *OR APPROVED EQUAL*, AUTOMATIC REAR SLACK ADJUSTERS		
41T-002	SYNTHETIC 75W-90 REAR AXLE LUBE, *OR APPROVED EQUAL*		
Rear Suspension		☐	☐
622-1E8	HENDRICKSON HAULMAAX, *OR APPROVED EQUAL*, REAR SUSPENSION @ 40,000#		
621-1AP	HENDRICKSON HAULMAAX, *OR APPROVED EQUAL*, - 10.50" RIDE HEIGHT		
624-011	52 INCH AXLE SPACING		
628-010	HENDRICKSON HN AND HAULMAAX SERIES, *OR APPROVED EQUAL*, STEEL BEAMS WITH BAR PIN		
623-006	FORE/AFT AND TRANSVERSE CONTROL RODS		

2500 Gallon Tanker
Technical Specifications

		Bidder Complies	
		Yes	No
Brake System		☐	☐
018-002	AIR BRAKE PACKAGE		
490-101	WABCO, *OR APPROVED EQUAL*, 4S/4M ABS WITH TRACTION CONTROL		
871-001	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
904-001	FIBER BRAID PARKING BRAKE HOSE		
412-001	STANDARD BRAKE SYSTEM VALVES		
46D-001	STANDARD AIR SYSTEM PRESSURE PROTECTION AND 85 PSI PRESSURE PROTECTION FOR AIR HORN(S)		
413-002	STD U.S. FRONT BRAKE VALVE		
432-003	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		
480-009	BW AD-9, *OR APPROVED EQUAL* ,BRAKE LINE AIR DRYER WITH HEATER		
479-003	AIR DRYER MOUNTED INBOARD ON LH RAIL		
460-001	STEEL AIR BRAKE RESERVOIRS		
477-001	PULL CABLE ON WET TANK, PETCOCK OR APPROVED EQUAL, DRAIN VALVES ON ALL OTHER AIR TANKS		
Trailer Connections		☐	☐
335-004	UPGRADED CHASSIS MULTIPLEXING UNIT		
32A-002	UPGRADED BULKHEAD MULTIPLEXING UNIT		
Wheelbase & Frame		☐	☐
545-477	4775MM (172 .25 INCH) WHEELBASE		
546-101	11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8MM/0.344X10.94 INCH) 120KSI		
547-001	1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT		
552-057	2350MM (93 INCH) REAR FRAME OVERHANG		
55W-009	FRAME OVERHANG RANGE: 91 INCH TO 100 INCH		
AC8-99D	CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 122.45 in		
AE8-99D	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA) : 119.45 in		
AE4-99D	CALC'D FRAME LENGTH - OVERALL : 310.39		
AM6-99D	CALC'D SPACE AVAILABLE FOR DECKPLATE : 122.45 in		
FSS-0LH	CALCULATED FRAME SPACE LH SIDE : 65.56 in		
FSS-0RH	CALCULATED FRAME SPACE RH SIDE : 87.6 in		
553-001	SQUARE END OF FRAME		
550-001	FRONT CLOSING CROSSMEMBER		
559-001	STANDARD WEIGHT ENGINE CROSSMEMBER		
562-001	STANDARD MIDSHIP #1 CROSSMEMBER(S)		
572-001	STANDARD REARMOST CROSSMEMBER		

		Bidder Complies	
		Yes	No
565-001	STANDARD SUSPENSION CROSSMEMBER		
Chassis Equipment		☐	☐
556-1AR	THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS		
574-001	BUMPER MOUNTING FOR SINGLE LICENSE PLATE		
586-024	FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS		
551-007	GRADE 8 THREADED HEX HEADED FRAME FASTENERS		
970-039	TANK BODY 1501 TO 3000 GALLONS		
Fuel Tanks		☐	☐
204-192	50 GALLON/189 LITER RECTANGULAR ALUMINUM FUEL TANK - LH		
218-005	RECTANGULAR FUEL TANK(S)		
215-004	POLISHING OF FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS		
212-007	FUEL TANK(S) FORWARD		
664-001	PLAIN STEP FINISH		
205-001	FUEL TANK CAP(S)		
122-076	ALLIANCE, *OR APPROVED EQUAL*, FUEL FILTER/WATER SEPARATOR WITH HEATED BOWL		
216-020	EQUIFLO, *OR APPROVED EQUAL*, INBOARD FUEL SYSTEM		
202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		
Tires		☐	☐
093-2DV	CONTINENTAL HSC1 12R22., *OR APPROVED EQUAL*, PLY RADIAL FRONT TIRES		
094-2F6	CONTINENTAL HDR2 11R22.5 14, *OR APPROVED EQUAL* PLY RADIAL REAR TIRES		
Hubs		☐	☐
418-056	CONMET , *OR APPROVED EQUAL,* PRESET PLUS IRON FRONT HUBS		
450-056	CONMET , *OR APPROVED EQUAL*, PRESET PLUS IRON REAR HUBS		
Wheels		☐	☐
502-1M3	ALCOA 89465X 22.5X9.00, *OR APPROVED EQUAL*, 10-HUB PILOT 5.96 INSET ALUMINUM DISC FRONT WHEELS		
505-1EF	ALCOA 88367X 22.5X8.25, *OR APPROVED EQUAL*, 10-HUB PILOT ALUMINUM DISC REAR WHEELS		
524-001	POLISHED FRONT WHEELS; OUTSIDE ONLY		
525-001	POLISHED REAR WHEELS; OUTSIDE OF OUTER WHEELS ONLY		
496-011	FRONT WHEEL MOUNTING NUTS		
497-011	REAR WHEEL MOUNTING NUTS		

2500 Gallon Tanker
Technical Specifications

		Bidder Complies	
		Yes	No
Cab Exterior		☐	☐
829-071	106 INCH FLAT ROOF ALUMINUM CONVENTIONAL CAB		
650-008	AIR CAB MOUNTS		
705-012	CAB ROOF REINFORCEMENTS FOR ROOF MOUNTED COMPONENTS		
648-002	NONREMOVABLE BUGSCREEN MOUNTED BEHIND GRILLE		
678-018	LH AND RH EXTERIOR GRAB HANDLES WITH SINGLE RUBBER INSERT		
646-023	HOOD MOUNTED CHROMED PLASTIC GRILLE		
65X-003	CHROME HOOD MOUNTED AIR INTAKE GRILLE		
644-004	FIBERGLASS HOOD		
690-017	HOOD LINER, ADDED FIREWALL AND FLOOR HEAT INSULATION		
727-036	VALVE AND PLUMBING FOR CUSTOMER FURNISHED AIR HORN, PIPING CAPPED AT FIREWALL		
726-002	DUAL ELECTRIC HORNS		
657-1CV	DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME WITH (4) KEYS		
575-001	REAR LICENSE PLATE MOUNT END OF FRAME		
312-038	INTEGRAL HEADLIGHT/MARKER ASSEMBLY WITH CHROME BEZEL		
302-047	LED AERODYNAMIC MARKER LIGHTS		
311-001	DAYTIME RUNNING LIGHTS		
294-001	INTEGRAL STOP/TAIL/BACKUP LIGHTS		
300-015	STANDARD FRONT TURN SIGNAL LAMPS		
744-1BC	DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE		
797-001	DOOR MOUNTED MIRRORS		
796-001	102 INCH EQUIPMENT WIDTH		
743-204	LH AND RH 8" BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS		
74A-001	RH DOWN VIEW MIRROR		
729-001	STANDARD SIDE/REAR REFLECTORS		
764-010	COMPOSITE EXTERIOR SUN VISOR		
768-998	NO REAR WINDOW		
661-004	TINTED DOOR GLASS LH AND RH WITH TINTED OPERATING WING WINDOWS		
654-011	RH AND LH ELECTRIC POWERED WINDOWS		
663-013	TINTED WINDSHIELD		
659-019	2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED		
Cab Interior		☐	☐
707-1AK	OPAL GRAY VINYL INTERIOR		

		Bidder Complies	
		Yes	No
706-016	MOLDED DOOR PANEL WITH UPPER VINYL INSERTS		
708-016	MOLDED DOOR PANEL WITH UPPER VINYL INSERTS		
772-006	BLACK MATS WITH SINGLE INSULATION		
785-001	DASH MOUNTED ASH TRAYS AND LIGHTER		
691-014	FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS AND ADDITIONAL CENTER COMPARTMENT WITHOUT NETTING		
694-010	IN DASH STORAGE BIN		
742-007	(2) CUP HOLDERS LH AND RH DASH		
680-006	GRAY/CHARCOAL FLAT DASH		
860-004	SMART SWITCH EXPANSION MODULE		
700-002	HEATER, DEFROSTER AND AIR CONDITIONER		
701-001	STANDARD HVAC DUCTING		
703-005	MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH		
170-002	STANDARD PLUMBING WITH BALL SHUTOFF VALVES AND INSULATED LINES		
130-033	DENSO HEAVY DUTY AIR CONDITIONER COMPRESSOR		
702-002	BINARY CONTROL, R-134A, *OR APPROVED EQUAL*		
739-034	PREMIUM INSULATION		
285-013	SOLID-STATE CIRCUIT PROTECTION AND FUSES		
280-007	12V NEGATIVE GROUND ELECTRICAL SYSTEM		
324-011	DOME DOOR ACTIVATED LH AND RH, DUAL READING LIGHTS, FORWARD CAB ROOF		
655-005	LH AND RH ELECTRIC DOOR LOCKS		
756-1G7	H.O. BOSTROM SIERRA AIR-30, *OR APPROVED EQUAL,* HIGH BACK AIR SUSPENSION DRIVER SEAT WITH ADJUSTABLE RECLINE, FIXED LUMBAR AND NFPA 1901-2009 COMPLIANT SEAT SENSOR		
760-1G7	H.O. BOSTROM SIERRA AIR-30, *OR APPROVED EQUAL,* HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH ADJUSTABLE RECLINE, FIXED LUMBAR AND NFPA 1901-2009 COMPLIANT SEAT SENSOR		
759-005	DUAL DRIVER AND PASSENGER SEAT ARMRESTS		
711-004	LH AND RH INTEGRAL DOOR PANEL ARMRESTS		
758-081	GRAY AND BLACK DURAWEAR FABRIC DRIVER SEAT COVER, SEAT BOLSTER AND INSERT		
761-081	GRAY AND BLACK DURAWEAR FABRIC PASSENGER SEAT COVER, SEAT BOLSTER AND INSERT		
763-074	3 POINT HIGH VISIBILITY ORANGE RETRACTOR DRIVER AND RH FRONT PASSENGER SEAT BELTS WITH NFPA 1901-2009 COMPLIANT SENSOR AND DASH HARNESS		
532-002	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN		
540-015	4-SPOKE 18 INCH (450MM) STEERING WHEEL		
765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS		

Bidder Complies	
Yes	No

Instruments & Controls

732-003	WOODGRAIN DRIVER INSTRUMENT PANEL	☐	☐
734-003	WOODGRAIN CENTER INSTRUMENT PANEL		
87L-001	ENGINE REMOTE INTERFACE WITH PARK BRAKE INTERLOCK		
870-001	BLACK GAUGE BEZELS		
486-001	LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM		
840-002	2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
198-003	DASH MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS		
149-013	ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
156-007	KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
811-042	ICU3S, *OR APPROVED EQUAL*, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		
160-025	DIAGNOSTIC INTERFACE CONNECTOR, 9 PIN, SAE J1939, LOCATED BELOW DASH, *OR APPROVED EQUAL*		
844-001	2 INCH ELECTRIC FUEL GAUGE		
148-073	ENGINE REMOTE INTERFACE FOR REMOTE THROTTLE		
163-001	ENGINE REMOTE INTERFACE CONNECTOR AT BACK OF CAB		
33U-007	CHASSIS MODULE JUMPER AND BRACKET FOR BODY BUILDER TO RELOCATE THE CHASSIS MODULE INTO THE CAB		
856-001	ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
864-001	2 INCH TRANSMISSION OIL TEMPERATURE GAUGE		
830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
372-051	CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS		
49B-004	ENHANCED STABILITY CONTROL		
852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE		
746-1B0	AM/FM/WB RADIO WITH CD PLAYER, BLUETOOTH AND MICROPHONE, USB, FRONT AND REAR AUXILIARY INPUTS AND J939, *OR APPROVED EQUAL*		
747-001	DASH MOUNTED RADIO		
750-002	(2) RADIO SPEAKERS IN CAB		
753-001	AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF		
810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
817-001	STANDARD VEHICLE SPEED SENSOR		

Bidder Complies	
Yes	No

812-001	ELECTRONIC 3000 RPM TACHOMETER
813-1C0	NFPA VEHICLE DATA RECORDER AND SEATBELT DISPLAY
162-011	IDLE LIMITER, ELECTRONIC ENGINE
329-010	TWO ON/OFF ROCKER SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB, LABEL OPT
264-028	(2) LH AND RH FOOT SWITCHES WITH DASH SWITCH FOR HORN BUTTON TO CONTROL AIR HORN, DEFAULT TO ELECTRIC <85 PSI
836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY
660-008	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY
304-001	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH
882-009	ONE VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR
299-013	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE
298-039	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS
Design	
065-000	PAINT: ONE SOLID COLOR
Color	
980-2L4	CAB COLOR CANDY APPLE RED ELITE BC
986-020	BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT
976-995	SUNVISOR PAINTED SAME AS CAB COLOR A

EMBER SEPARATOR

An air inlet shall be equipped with a stainless mesh screen for separating water and burning embers from the air intake system such that particulate matter larger than 0.039" (1.0 mm) in diameter cannot reach the air filter element.

SEAT BELT CLARIFICATION

Red seat belts shall be provided if available from the chassis manufacturer.

BUMPER EXTENSION

A 12" high, 96" wide, two (2) ribbed, bright finish stainless steel front bumper shall be provided. A twenty-four (24) inch front bumper extension, with aluminum tread plate gravel shield, shall be provided.

Bidder Complies	
Yes	No
☐	☐

STORAGE WELL

One (1) storage well constructed of 1/8" aluminum shall be installed in the gravel shield. This storage well shall be center mounted between the chassis frame rails. The bottom of the storage well shall have a minimum of four (4) drain holes.

This storage well shall be able to store 50' of 3" hose.

One (1) hinged, latched, aluminum tread plate cover shall be installed on the storage well located in the center of the bumper extension.

The tread plate hose well cover shall have a notch cut out to allow pre-connection of suction/discharge hose.

	Bidder Complies	
	Yes	No
WHEEL TRIM KITS	☐	☐

Wheel trim kits consisting of chrome baby moon hubcaps and chrome lug nut covers shall be installed on the front and rear axles of the tandem axle chassis.

CENTER CONSOLE	☐	☐

A center console fabricated from 1/8" aluminum shall be furnished and shall be located between the driver and officer's seats.

The forward area of the console shall have a mounting surface for emergency lighting switch panels and/or electronic siren control boxes within reach of the driver or officer. In addition, the console shall be equipped with two (2) map/notebook storage pockets at the rear of the console.

The console shall be finished with a brushed aluminum finish.

Console dimensions are based on current in dimensions. Other specified commercial cabs (or changes to the cab) may result varied dimensions.

This console should also have enough room to house the FD's mobile radio.

ANTENNA INSTALLATION	☐	☐

One (1) antenna mounting base with 17' of coaxial cable shall be provided and installed on the cab roof. The attached antenna wire(s) shall be run to the right side cab dash area.

The Fire Department is responsible to have the correct antenna whip installed once the apparatus is delivered.

TIRE PRESSURE MONITORING DEVICES	☐	☐

Each tire shall be equipped with an LED tire alert pressure management system that shall monitor tire pressure. A chrome plated brass sensor shall be provided on the valve stem of each tire.

The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 20 and 120 psi. The sensor shall activate an integral battery operated LED when the pressure of that tire drops 8 psi.

Removing the cap from the stem shall indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED shall immediately start blinking.

	Bidder Complies	
	Yes	No
AUXILIARY AIR MANIFOLD	☐	☐

All auxiliary air devices on the commercial chassis shall be fed from a common manifold. The common manifold shall be installed at an accessible location near the chassis air tanks. The manifold shall be fed by a 3/8 air lined plumbed from the primary air tank using a pressure protection valve. Unused ports in the manifold shall be closed off using an appropriately sized plug.

SEAT BELT CUSHION SENSORS AND BELT SENSORS	☐	☐

The apparatus shall be equipped with an Akron/Weldon, *or approved equal*, seat belt warning system. The system shall consist of a Seat Belt module, dash mounted display and an audible alarm.

Seat belt and seat cushion sensors shall be provided on the two (2) specified seating positions.

VEHICLE DATA RECORDER	☐	☐

A Vehicle Data Recorder (VDR) system shall be provided. The system shall include an NFPA compliant "Black Box" with reporting software that shall be capable of data storage to coincide with the NFPA requirements.

Data storage capabilities shall include interfaces with the following systems:

Display module (Master Optical Warning Device)
VDR, date & time stamp
Max Vehicle speed (MPH)
Vehicle acceleration / deceleration (MPH/Sec.)
Engine Speed (RPM)
ABS event
Data password protected
Data sampled once per second, in 48-hour loop
Data sampled min by min for 100 engine hours
Throttle position (% of Throttle)
Data software
PC / Mac Compatible
Data summary reports.

A WELDON model #0L40-2597-00, *or approved equal*, VDR download harness shall be supplied with the system to allow the data to be downloaded to a computer.

	Bidder Complies	
	Yes	No

******* CHASSIS/BODY ELECTRICAL & ACCESSORIES *******

COMMERCIAL CHASSIS ELECTRICAL SYSTEM ☐ ☐

The commercial chassis electrical system shall be provided as furnished by the original manufacturer. A customized interface shall be provided and designed, so as not to disturb any of the required chassis functions. The necessary interfaces shall only be provided in areas where load management is allowed or with accessory components provided on the chassis.

12 VOLT ELECTRICAL SYSTEM TESTING ☐ ☐

The apparatus low voltage electrical system shall be tested and certified by the manufacturer. The certification shall be provided with the apparatus. All tests shall be performed with air temperature between 0°F and 100°F.

The following three (3) tests shall be performed in order. Before each test, the batteries shall be fully charged.

TEST #1-RESERVE CAPACITY TEST ☐ ☐

The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load shall be activated for 10 minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a test failure.

TEST #2-ALTERNATOR PERFORMANCE TEST AT IDLE ☐ ☐

The minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.

TEST #3-ALTERNATOR PERFORMANCE TEST AT FULL LOAD ☐ ☐

The total continuous electrical load shall be activated with the engine running up to the engine manufacturers governed speed. The test duration shall be a minimum of 2 hours. Activation of the load management system shall be permitted during this test. However, an alarm sounded due to excessive battery discharge, as detected by the system, or a system voltage of less than 11.7 volts DC for a 12 volt system, for more than 120 seconds, shall be considered a test failure.

Bidder Complies	
Yes	No

LOW VOLTAGE ALARM TEST ☐ ☐

Following completion of the preceding tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm is activated.

The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of less than 11.7 volts shall be considered a test failure. The battery system shall then be able to restart the engine.

At time of delivery, documentation shall be provided with the following information:

Documentation of the electrical system performance test
A written load analysis of the following;
Nameplate rating of the alternator
Alternator rating at idle while meeting the minimum continuous electrical load
Each component load comprising the minimum continuous electrical load.
Additional loads that, when added to the minimum continuous load, determine the total connected load.
Each individual intermittent load.

LOAD MANAGEMENT SYSTEM ☐ ☐

A load management system shall be provided. The load manager shall have 16 programmable outputs to supply warning and load switching requirements. The load management system shall be capable of offering load sequencing, load shedding, fast idle control, low voltage warning, scene mode operation and response mode operation.

Outputs 1 thru 12 shall be independently programmable to activate during the scene mode, the response mode or both. These outputs can also be programmed to activate with the ignition or master warning switch, or to sequence and shed along with the priority. Output 13 shall be designated to activate a fast idle system. Output 14 shall provide a low voltage warning for an isolated battery. Output 15 is a user configurable output and shall be programmable for activating between 10.5 and 15 volts. Output 16 shall provide a low voltage alarm that activates at the NFPA required 11.8 volts.

The load management shall have a digital display to indicate system voltage in normal operation mode and also indicate the output configuration during programming mode.

The load management shall also be protected against reverse polarity and shorted outputs, and be enclosed in a metal enclosure to enhance EMI/RFI protection.

	Bidder Complies	
	Yes	No

CHASSIS DIAGNOSTICS SYSTEM ☐ ☐

Diagnostic ports shall be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel shall allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches shall allow engine and ABS systems to provide blink codes should a problem exist.

The diagnostic system shall include the following:

- A single port to monitor the engine, transmission and ABS system and diagnostics of the roll sensor (if applicable)
- Engine diagnostic switch (blink codes)
- ABS diagnostic switch (blink codes)
- Allison Transmission Codes (through touch pad shifter), or approved equal

BATTERY DISCONNECT SWITCH ☐ ☐

The chassis batteries shall be wired in parallel to a single 12 volt electrical system, controlled through a heavy duty master disconnect switch. The master disconnect switch shall be located within easy access of the driver upon entering or exiting the cab.

120 VOLT SHORELINE CONNECTION - "SUPER" AUTO EJECT ☐ ☐

One (1) Kussmaul "Super" Auto Eject model 091-55-20-120, *or approved equal* automatic, 120 volt, 20 amp shoreline disconnect, shall be provided for the on board, 110 volt battery charging systems.

The disconnect shall be equipped with a NEMA 5-20 P male receptacle, or approved equal, which shall automatically eject the shoreline when the vehicle starter is energized. The mating connector shall be included with the auto eject and shall be provided as loose equipment. A label shall be provided indicating voltage and amperage ratings.

SHORELINE POWER INLET PLATE ☐ ☐

A shoreline power receptacle information plate shall be permanently affixed at or near the power inlet. The plate shall indicate the following:

Type of Line Voltage
Current Rating in Amps Power Inlet Type (DC or AC).

The Kussmaul, *or approved equal*, auto-eject connection shall be equipped with a Red weatherproof cover.

Bidder Complies	
Yes	No

The shoreline receptacle shall be located in the driver's cab step well.

BATTERY CHARGER / AIR COMPRESSOR SYSTEM ☐ ☐

A Kussmaul model # 091-215-12, *or approved equal*, “Auto Charge 1000 PLC”A fully automatic battery charger” shall be provided for maintaining the vehicle battery system. Unique electronic sensing circuits sense the true battery voltage while eliminating the need for external sense wires. Output current shall be 15 amperes @ 12 volt DC.

A Kussmaul 091-9HP, *or approved equal*, air compressor, shall maintain the air pressure in the chassis air brake system while the vehicle is not in use. The air compressor shall have a rated input at 120 volts AC @ 3.5 amps and an output 125 psi max.

A LED bar graph display shall be located near the shoreline connection to monitor the battery status.

A Kussmaul # 091-9-090, *or approved equal*, Auto Drain shall be installed to protect the Auto Pump from built up moisture.

"DO NOT MOVE APPARATUS" WARNING LIGHT WITH AUDIBLE ALARM ☐ ☐

A 1" round, red flashing warning light with an integral audible alarm, shall be functionally located in the cab to signal when an unsafe condition is present such as an open cab door or body compartment door, an extended ladder rack, a deployed stabilizer, an extended light tower or any other device which is opened, extended or deployed which may cause damage to the apparatus if it is moved.

This light shall be activated at all times. The audible alarm will be activated when the parking brake is released. This light shall be labeled "DO NOT MOVE TRUCK".

12 VOLT POWER PORT ☐ ☐

Two (2) 12 volt power port accessory outlet(s) shall be installed in the cab of the truck for the fire departments accessory devices. The port(s) shall be located as directed in the cab for devices such as cellular phones.

TRIPLE CAMERA SYSTEM ☐ ☐

ASA Voyager, *or approved equal*, rear vision camera system shall be provided to allow the driver to visually see the rear of the apparatus while in the cab. The system shall include an ASA model # AOM713WP, *or approved equal*, flat panel LCD color monitor mounted adjacent to the driver and an color camera that shall be mounted at the rear of the vehicle.

Bidder Complies	
Yes	No

In addition to the rear vision camera, an ASA model# VCMS50RCM , *or approved equal*, side mounted camera, shall be mounted on the officer side of the truck over the right side dump and an ASA model# VCMS50LCM, *or approved equal*, side mounted camera shall be mounted on the driver side of the truck over the left side dump.

The cameras shall be wired as follows:

The driver side vision camera shall automatically activate when the driver side dump is activated.
The officer side vision camera shall automatically activate when the officer side dump is activated.
The rear vision camera shall be on at all times unless one of the side dumps is activated.

The two (2) side cameras will be positioned to have a view of the two side dumps.

The monitor for the rear vision system shall be mounted ceiling of the cab in easy view of the driver.

DOT MARKER LIGHTS AND REFLECTORS ☐ ☐

Cab marker lights and signaling devices shall be as provided on the commercial chassis cab from the original chassis manufacturer. FMVSS reflectors shall be also be provided as required.

FMVSS approved red LED marker lights with integral reflectors shall be provided at the lower side rear, one (1) each side.

FMVSS approved yellow LED side marker and turn lights shall be provided on the apparatus lower side, forward of rear axle, one (1) each side.

FMVSS approved red LED clearance lights shall be provided on the apparatus rear upper, one (1) each side at the outermost practical location.

FMVSS approved LED 3-lamp identification bar will be provided on the apparatus rear center. The lights shall be red in color.

FMVSS approved yellow reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30' long or longer.

FMVSS approved red reflectors shall be provided on the apparatus rear, one (1) each side at the outermost practical location.

Bidder Complies	
Yes	No

LED LICENSE PLATE LIGHTS - REAR ☐ ☐

Two (2) Whelen model # 0AC0EDCR, *or approved equal*, LED license plate lights shall be provided above the mounting position of the license plate. The lights shall be clear in color and shall have a chrome finish. They shall be mounted 1-2" high above the license plate and spaced apart 3" off center.

TAIL, STOP, TURN AND BACK-UP LIGHTS ☐ ☐

Two (2) Whelen 600 series 4-1/8" x 6-1/2", *or approved equal*, LED red combination tail and stop lights, shall be mounted one each side at the rear of the body.

Two (2) Whelen 600 series 4-1/8" x 6-1/2",*or approved equal*, LED amber arrow turn signal lights, shall be mounted one each side, on a vertical plane with the tail/stop lights.

Two (2) Whelen 600 series 4-1/8" x 6-1/2", *or approved equal*, white halogen back-up lights, shall be mounted one each side on a vertical plane with the turn/tail/stop signals. These lights shall activate when the transmission is placed in reverse gear.

Two (2) Whelen PLAST3V, *or approved equal*, mounting flanges, installed one (1) on each side, shall be provided to mount the lights described above in one common mounting flange.

The lights shall be mounted in order, from top to bottom, as described above.

BODY STEP LIGHTS ☐ ☐

Chrome plated Innovative Lighting, 3-LED surface mounted, body step lights shall be provided and controlled with marker light actuation. Step lights shall be located to properly illuminate all body access steps and walkway areas.

SCENE LIGHTS - REAR OF BODY ☐ ☐

Two (2) Whelen # 9SC0ENZR, *or approved equal*, LED scene lights shall be provided, one on each side of the rear body panel in a chrome plated flange. The scene lights shall be wired through the load management system.

SCENE LIGHTS - DRIVER SIDE OF BODY ☐ ☐

Two (2) Whelen # 9SC0ENZR, *or approved equal*, LED scene lights shall be provided. The scene lights shall be installed one rearward and one forward on the driver side of the body

	Bidder Complies	
	Yes	No

in a chrome plated flange. The scene lights shall be wired through the load management system.

SCENE LIGHTS - OFFICER SIDE OF BODY ☐ ☐

Two (2) Whelen # 9SC0ENZR, *or approved equal*, LED scene lights shall be provided. The scene lights shall be installed one rearward and one forward on the officer side of the body in a chrome plated flange. The scene lights shall be wired through the load management system.

REAR OF BODY SCENE LIGHT SWITCHING - CAB ☐ ☐

A switch shall be provided in the cab warning light switch console to turn the rear of body scene lights on and off.

REAR OF BODY SCENE LIGHT SWITCHING - PUMP PANEL ☐ ☐

A switch shall be provided on the pump panel to turn the rear of body scene lights on and off.

DRIVER SIDE OF BODY SCENE LIGHT SWITCHING - CAB ☐ ☐

A switch shall be provided in the cab warning light switch console to turn the driver side of body scene lights on and off.

Driver Side OF BODY SCENE LIGHT SWITCHING - PUMP PANEL ☐ ☐

A switch shall be provided on the pump panel to turn the driver side of body scene lights on and off.

OFFICER SIDE OF BODY SCENE LIGHT SWITCHING - CAB ☐ ☐

A switch shall be provided in the cab warning light switch console to turn the officer side of body lights on and off.

OFFICER SIDE OF BODY SCENE LIGHT SWITCHING – Pump Panel ☐ ☐

A switch shall be provided on the pump panel to turn the officer side of body scene lights on and off.

REAR SCENE LIGHTS - ADDITIONAL ACTIVATION ☐ ☐

In addition to the cab mounted switch for the rear scene lights, the rear scene lights shall illuminate when the transmission is placed in reverse gear and the apparatus is operating as an emergency vehicle (Primary Warning switch on).

	Bidder Complies	
	Yes	No

GROUND LIGHTS - CAB

One (1) Hansen, or approved equal, 12" LED ground light shall be provided under each side cab door entrance step, two (2) total. The lights shall be mounted in standalone aluminum mounting track with mounting slots at each end. The ground lights shall turn on automatically with each respective door jamb switch and also by a master ground light switch in the warning light switch console.

Each light shall illuminate an area at a minimum 30" outward from the edge of the vehicle.

GROUND LIGHTS - REAR

One (1) Hansen, *or approved equal*, 12"LED ground light shall be provided under each rear body corner, two (2) total. The lights shall be mounted in standalone aluminum mounting track with mounting slots at each end. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

GROUND LIGHTS - MIDSHIP

One (1) Hansen, *or approved equal*, 2", LED ground light shall be provided under each midship compartment, total of two (2). The lights shall be mounted in standalone aluminum mounting track with mounting slots at each end. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.

GROUND LIGHT SWITCHING

The cab and body ground lights shall activate by engaging the parking brake.

GROUND LIGHT SWITCHING

The cab and body ground lights shall be equipped with an activation switch in the cab.

Bidder Complies	
Yes	No

****** BODY ELECTRICAL SYSTEM ******

12 VOLT BODY ELECTRICAL SYSTEM ☐ ☐

All electrical lines in the body shall be protected by automatic circuit breakers, conveniently located to permit ease of service. Flashers, heavy solenoids and other major electrical controls shall be located in a central area near the circuit breakers.

All lines shall be color and function coded every 3", easy to identify, oversized for the intended loads and installed in accordance with a detailed diagram. A complete wiring diagram shall be supplied with the apparatus.

Wiring shall be carefully protected from weather elements and snagging. Heavy duty loom shall be used for the entire length. Grommets shall be utilized where wiring passes through panels.

In order to minimize the risk of heat damage, wires run in the engine compartment area shall be carefully installed and suitably protected by the installation of heat resistant shielded loom.

All electrical equipment shall be installed to conform to the latest federal standards as outlined in NFPA 1901.

BODY ELECTRICAL JUNCTION COMPARTMENT ☐ ☐

A weather resistant electric junction compartment shall be provided within the body or pump enclosure, depending on vehicle configuration. This compartment shall provide an easily accessible enclosure to house all of the body wiring junction points, terminal strips, solenoids, etc. The design of this compartment shall not decrease the storage capacity area of the compartment or area in which it is located. A removable panel shall be provided for access to this compartment.

PUMP ENCLOSURE WORK LIGHTS ☐ ☐

Two (2) Peterson model #M391, *or approved equal*, lights shall be provided inside the pump enclosure providing a minimum of 20 candlepower illumination. Each light shall have their own independent switch incorporated into the light head.

ENGINE COMPARTMENT WORK LIGHTS ☐ ☐

Two (2) Peterson model #M391, *or approved equal*, lights shall be provided inside the engine enclosure that will provide a minimum of 20 candlepower illumination. Each light shall have their own independent switch incorporated into the light head.

	Bidder Complies	
	Yes	No
COMPARTMENT LIGHTS - LED	☐	☐
Each individual equipment storage compartment shall be equipped with Hansen, or approved equal, LED track lighting, 10MM style, mounted on the forward (or rearward) vertical door frame. The lights shall come with a three (3) year warranty.		
TELESCOPING 150W LED FLOODLIGHTS – ON BODY	☐	☐
Two (2) Akron SceneStar, *or approved equal*, 150 watt, 12 volt led flood lights shall be installed, one (1) on the OS front of body, on the DS rear of the body, each using a, Extenda-Lite, *or approved equal*, side mount telescoping pole. Each lamp head shall draw 12 amps and generate 14,000 lumens. Each light shall be switched at the light head.		
REAR OF BODY LIGHT SWITCHING - CAB	☐	☐
A switch shall be provided in the cab warning light switch console to turn the rear of body lights on and off.		
NFPA AUDIBLE AND LIGHTING WARNING PACKAGE	☐	☐
The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1901 Fire Apparatus Standard. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" which includes disabling all white warning lights when the apparatus is in "Blocking Right of Way" mode.		
LIGHT PACKAGE ACTUATION CONTROLS	☐	☐
The entire warning light package shall be actuated with a single warning light switch located on the cab switch panel. The wiring for the warning light package shall engage all of the lights required for "Clearing Right of Way" mode when the vehicle parking brake is not engaged. An automatic control system shall be provided to switch the warning lights to the "Blocking Right of Way" mode when the vehicle parking brake is engaged.		
WARNING LIGHT FLASH PATTERN	☐	☐
All of the perimeter warning lights shall be set to an NFPA compliant flash pattern by the apparatus manufacturer.		

	Bidder Complies	
	Yes	No

UPPER LEVEL LIGHTING

NFPA ZONE A, UPPER ☐ ☐

Whelen # JE2NFPA "Justice, *or approved equal*, 56" LED cab roof warning light bar shall be furnished and rigidly mounted on top of the cab roof.

The light bar shall be equipped with the following:

Clear Lenses
Four Corner Red Linear 6 LED's
Four Red Forward Facing 3 LED's
Two White Forward Facing 3 LED's.

If equipped, the forward facing white lights shall be automatically disabled for the "Blocking Right of Way" mode.

The light bar shall be equipped with LED take down lights.

NFPA ZONE C, UPPER ☐ ☐

Two (2) Whelen 90**5F*R, 900, *or approved equal*, super LED light heads shall be furnished and mounted one (1) each side on the upper rear face of the body, facing rear.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

NFPA ZONES B & D REAR, UPPER ☐ ☐

Two (2) Whelen 90**5f*R, 900, *or approved equal*, super LED light heads shall be furnished and mounted one (1) each side on the upper side face, towards the rear of the body, facing to each side of the unit.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

NFPA ZONES B & D FRONT, UPPER ☐ ☐

The lighting requirement for this area is covered by the lights noted in Zone "A" - Upper.

LOWER LEVEL LIGHTING

	Bidder Complies	
	Yes	No
NFPA ZONE A, LOWER	☐	☐

Two (2) Whelen 60*02F*R 600, *or approved equal*, super LED light heads shall be provided and installed one (1) each side.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

The lower zone A warning lights shall be mounted in the commercial chassis grille.

NFPA ZONE C, LOWER	☐	☐

Two (2) Whelen 60*02F*R 600, *or approved equal*, super LED light heads shall be provided and installed one (1) each side directly below the DOT stop, tail, turn and backup lights.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

NFPA ZONES B & D FRONT, LOWER	☐	☐

Two (2) Whelen 60*02F*R 600, *or approved equal*, super LED light heads shall be provided and installed one (1) each side.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

The lower zone B & D warning lights shall be mounted on the sides of the commercial chassis hood.

NFPA ZONES B & D MIDSHIP, LOWER	☐	☐

Two (2) Whelen 60*02F*R 600, *or approved equal*, super LED light heads shall be provided and installed one (1) each side.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

These lights are to be mounted forward of the front tandem wheels.

Bidder Complies	
Yes	No

NFPA ZONES B & D REAR, LOWER

Two (2) Whelen 60*02F8R 600, *or approved equal*, super LED light heads shall be provided and installed one (1) each side.

Each light head shall be equipped with red LED's and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

These lights are to be mounted just behind the rear tandem wheels.

WARNING LIGHT SYSTEM CERTIFICATION

The warning light system(s) specified above shall not exceed a combined total amperage draw of 45 AMPS with all lights activated in either the "Clearing Right of Way" or the "Blocking Right of Way" mode.

The warning light system(s) shall be certified by the light system manufacturer(s), to meet all of the requirements in the current revision of the NFPA 1901 Fire Apparatus Standard as noted in the General Requirements section of these specifications. The NFPA required "Certificate of Compliance" shall be provided with the completed apparatus.

******* AUDIBLE WARNING EQUIPMENT *******

BACK-UP ALARM

A Federal Signal, Evacuator Plus # 210330, 87dBA, *or approved equal*, back-up alarm shall be provided and installed at the rear of the apparatus under the tailboard. The back-up alarm shall activate automatically when the transmission is placed in reverse gear and the ignition is "on".

AIR HORNS

Two (2) chrome plated air horns shall be at the front of the vehicle. The air horns shall be mounted in full compliance with NFPA-1901. The supply lines shall be dual 1/4" lines with equal distance from each horn.

Each air horn shall be recessed in the front bumper, one (1) on the driver's side and one (1) on the officer's side.

The air horn(s) shall be controlled by a foot switch on the officer's side and the steering horn button on driver's side. An air horn/electric DOT horn selector switch shall be furnished on the dash for the drivers steering horn button.

Bidder Complies

Yes	No

ELECTRONIC SIREN AND SPEAKER

One (1) Whelen # 295HFS2, *or approved equal*, 100 watt electronic siren shall be provided featuring: flush mount remote control head recessed in center console, "Si-Test" self diagnostic feature, six (6) function siren, radio repeat and public address.

The electronic siren and speaker shall meet the NFPA required SAE certification to ensure compatibility between the siren and speaker.

One (1) Whelen, model # SA122FMP, *or approved equal*, polished aluminum siren speaker shall be provided, recessed in the front bumper and wired to the electronic siren.

FEDERAL Q2B MECHANICAL SIREN

One (1) Federal Model #Q2B, *or approved equal*, mechanical siren shall be provided to provide audible warning.

The siren shall be pedestal mounted on top of the extended bumper on the driver's side. The siren shall be equipped with a Federal model #P, *or approved equal*, chrome housing and pedestal.

Two (2) floor mounted foot switches shall be provided, one (1) for the officer and one (1) for the driver. A siren brake button shall be provided near the driver's position.

****** PUMP AND PLUMBING ******

Power Take-Off (PTO) Pump

DETAILED SPECIFICATIONS

SPECIAL NOTE:
When preparing the specifications for your new apparatus, use products by incorporating these specifications as written.

Pump Assembly

1. The pump shall be of a size and design to mount on commercial and custom truck chassis, and have the capacity of 750 gallons per minute (U.S. GPM), NFPA 1901 rated performance.
2. The entire pump shall be manufactured and tested at the pump manufacturer's factory.
3. The pump shall be driven by a transmission mounted or split drive line power take-off (PTO). The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance within the torque rating of the PTO, truck transmission

Bidder Complies	
Yes	No

gears and drive line components.

4. The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 500 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined by the latest NFPA Standard 1901. Pump shall be free from objectionable pulsation and vibration.
5. The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI. All moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.
6. Pump body shall be vertically split, on a single plane, for easy removal of impeller assembly, including clearance rings.
7. Pump shaft to be rigidly supported by two bearings for minimum deflection. The bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.
8. The pump shaft shall have only one mechanical seal. The mechanical seal shall be spring loaded, maintenance free and self-adjusting. (No exceptions.)
9. Pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined, hand-ground and individually balanced. The vanes of the impeller intake eye shall be hand-ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.
10. Impeller clearance rings shall be bronze, easily renewable without replacing impellers or pump volute body.
11. The pump shaft shall be electric furnace heat-treated and corrosion resistant with a positive impeller lock. Pump shaft must be sealed with double lip oil seal to keep road dirt and water out of gearbox.

Gearbox ☐ ☐

1. The gearbox shall be manufactured and tested at the pump manufacturer's factory.
2. Pump gearbox shall be of sufficient size to withstand the torque of the engine in pump operating conditions. The gearbox shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.
3. The gearbox drive shaft shall be of heat-treated chromium steel and shall withstand the torque of the engine in pump operating conditions.
4. All gears shall be of highest quality electric furnace chrome nickel steel. Bores shall be ground to size and teeth integrated, crown-shaved and hardened, to give an extremely accurate gear for long life, smooth, quiet running and higher load carrying capability. An accurately cut helical design shall be provided. (No exceptions.)
5. The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine, transmission and power take-off selected.

CERTIFICATION ☐ ☐

The pump will perform and meet the following tests:
100% of rated capacity @150 PSI net pump pressure.
100% of rated capacity @ 165 PSI net pumps pressure.

Bidder Complies	
Yes	No

70% of rated capacity @ 200 PSI net pump pressure.
50% of rated capacity @ 250 PSI net pump pressure.
Pump shall be tested at manufacturer under full NFPA suction conditions.

PRIMING PUMP ☐ ☐

The priming pump will be a Trident, *or approved equal*, air primer system. A push in primer handle will open the priming valve and prime the pump.

6” STEAMER INLETS ☐ ☐

One 6" (12.70cm) steamer inlet will be provided on the left side. The inlet shall have long handle chrome vented cap and a screen.

RELIEF VALVE ☐ ☐

There shall be one (1) suction side stainless steel relief valve provided on the pump system.

PUMP MODULE PANELS ☐ ☐

The pump module panel shall be 14 gauge brushed stainless steel.

PUMP CERTIFICATION TEST PLATE ☐ ☐

A permanently affixed plate shall be installed at the pump operators position that will provide the rated discharge and pressures together with the speed of the engine as determined by the certification test for each unit, the position of the parallel/series pump used and the no load governed speed of the engine as stated by the engine manufacturer on a certified brake horsepower curve.

DISCHARGE VALVES ☐ ☐

The valves including the ball shall be constructed of 304 stainless steel. The valves shall be bi-directional with full flow capability. The valves shall be of fixed pivot ball design with a flow pressure rating to meet NFPA-1901 standards. The valve shall have a single piece seat and seal design and shall have an operating pressure of 400 psi. All 3.0” (7.62cm) discharge valves shall be supplied with a true slow close mechanism. The valve shall be warranted for a period of ten (10) years on all stainless steel components, against defects in design and manufacturing processes.

PIPING AND MANIFOLDS ☐ ☐

All the plumbing and/or piping in the pump module shall be of 304 stainless steel or flexible piping for long life. All pipe thread connections larger than ¾” connections shall be avoided in the construction of the plumbing system. The following valves shall have groove connection: tank fill, all 2” and 2-½” (5.08 and 6.35cm) pre-connect valves.

The flexible piping shall be black SBR, *or approved equal*, synthetic rubber hose with 300 working pounds and 1200 pounds burst pressure for sizes 1.5 through 4”. Sizes ¾”, 1” and 5” are rated at 250 pound working and 1000 pound burst pressure. All sizes are rated at 30 HG

	Bidder Complies	
	Yes	No

vacuum. Reinforcement consists of two plies of high tensile strength tire cord for all sizes sand helix wire installed in sizes 1 through 5” for maximum performance in tight bend applications.

The material has a temperature rating of –40 degrees F to 210 degrees F. Full flow couplings are precision machined from high tensile strength stainless steel. All female couplings are brass. ¾” and 1” male and Victaulic, *or approved equal*, couplings are brass.

PUMP COOLER and ENGINE COOLER VALVES ☐ ☐

An engine cooler and pump cooler valve shall be installed in the instrument panel. The valves shall be a 1/4" multi-turn valve installed thru the instrument panel and labeled.

MASTER PUMP DRAIN ☐ ☐

The pump shall be equipped with a drain to allow draining of the lower pump cavities, volute and selected water carrying lines and accessories. The drain shall have an all brass body with a stainless steel return spring.

TEST POINTS ☐ ☐

Two (2) U.L., *or approved equal*, test plugs shall be mounted on the pump panel for testing of the vacuum and pressures.

VALVE CONTROLS ☐ ☐

Locking push pull control rods shall be provided for appropriate valves. The chrome plated zinc handles shall have a recessed area for 1” x 3” (2.54 x 12.70cm) identification tags. The controls shall be locked in any position.

Valve lift handles shall be provided on appropriate valves. The lift handles shall have a recessed area for 1” x 3” (2.54 x 12.70cm) identification tags. The lift handles require a self locking valve.

DISCHARGE GAUGES ☐ ☐

Individual 2-½(6.35cm) line gauges for each 2” (5.08cm) or larger discharge shall be provided and mounted adjacent to the discharge valve control handle. The gauges shall indicate pressure from 0 to 400 PSI. The pressure gauge shall be fully filled with pulse and vibration dampening lube to lubricate the internal mechanisms to prevent lens condensation and to ensure proper operation to minus 40 degrees F. To prevent internal freezing and to keep contaminants from entering the gauge, the stem and Bourdon tube shall be filled with low temperature material and be sealed from the water system using an isolating Sub Z diaphragm located in the stem.

INDIVIDUAL DRAINS ☐ ☐

All 2” (5.08cm) or larger discharge outlets shall be equipped with a ¾” ball valve drain valve or larger.

	Bidder Complies	
	Yes	No

WIRING HARNESS

The electrical wiring harness shall be manufactured using GXL, *or approved equal*, wire as SAE- J1128 rated performance requirements. The electrical wiring harness shall be covered by a black split convoluted loom, rated at a minimum of 275º F. All terminals shall meet the minimum pull test as required by the manufacturers pull test and crimp measurement data. All splices shall be manufactured using the ultra sonic splice process. The harness shall be 100% connected to a circuit tester to insure continuity and correct assembly.

LEFT SIDE FRONT DISCHARGE

One (1) 2-½" (6.35cm) discharge with a stainless steel valve shall be located on the left side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The 2-½" (6.35cm) outlet shall be straight terminating with 2-½" (6.35cm) MNST threads. A chrome vented cap and chain shall also be supplied. The valve shall be controlled at the side panel with a lift handle.

There shall be a 2 ½” pressure gauge mounted on the panel near the control to indicate pressure. The discharge shall also come equipped with a pull-up ¾" drain valve. The discharge must be capable of flowing 500 GPM or greater.

LEFT SIDE AUXILLARY SUCTION

One (1) 2-½" (6.35cm) intake with a stainless steel valve shall be located on the left side panel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The valve shall be controlled at the side pump panel with a lift handle. The valve shall come equipped with a chrome plug, chain, inlet strainer, 2-½ (6.35 cm) chrome inlet swivel and pull-up ¾” drain valve.

TANK FILL

One (1) 2"(5.08cm) discharge with a stainless steel valve shall be plumbed to the tank. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The 2"(5.08cm) valve outlet terminates with 2"(5.08cm) grooved connection. Valve shall be controlled at the side panel with a chrome-plated push/pull locking "T" handle mounted on the pump panel.

TANK TO PUMP

One (1) 4" (10.16cm) valve shall be installed between the water tank and the pump. The valve shall be a quarter turn ball type. The valve shall be electrically actuated with emergency manual operation capability. The valve shall be controlled with a switch at the pump panel.

HOSE REEL

One (1) 2"(5.08cm) discharge with a stainless steel valve shall be plumbed to the hose reel. The valve shall be a quarter turn ball type and fixed pivot design to allow easy operation at all pump pressures. The 2"(5.08cm) valve outlet terminates with 1 1/2"(3.81cm) grooved

Bidder Complies	
Yes	No

connection. The valve shall be actuated with an air cylinder. The valve shall be controlled with a switch at the pump panel.

PRESSURE GOVERNOR ☐ ☐

Apparatus shall be equipped with a "Total Pressure Governor Plus" (TPG+), *or approved equal*, that is connected to the Engine Control Module (ECM) mounted on the engine. The (TPG+), *or approved equal*, will operate as a pressure sensor (regulating) governor (PSG) utilizing the engine's J1939 data for optimal resolution and response when supported by the engine manufacturer. If J-1939 engine control is not supported, then analog remote throttle control shall be provided by the (TPG+), *or approved equal*. The (TPG+), *or approved equal*, shall function as a Master Pump Discharge and Intake Gauge.

The (TPG+), *or approved equal*, shall utilize control algorithms that minimize pressure spikes during low or erratic water supply situations. The (TPG+), *or approved equal*, shall be backwards compatible to any engine that supplies J1939 RPM, Temperature and Oil Pressure information providing the ability to maintain a consistent fleet fire-fighting capability and reduce operator cross training and confusion.

The (TPG+), *or approved equal*, shall have the ability to use either a 300 PSI or a 600 PSI discharge pressure transducer and a 300 PSI intake pressure transducer. PSG system diagnostics shall be built in and accessible by technicians. Programmable presets for RPM and Pressure settings shall be easily configurable. The straightforward menu structure shall allow the (TPG+), *or approved equal*, configuration to match existing apparatus operation as closely as possible.

The (TPG+), *or approved equal*, shall also include indication of engine RPM, system voltage, engine oil pressure and engine/transmission temperature with audible alarm output for all. The (TPG+), *or approved equal*, uses the J1939 data bus for engine information, requiring no additional sensors to be installed. The (TPG+), *or approved equal*, shall monitor and display pump and engine hours. The (TPG+), *or approved equal*, shall use J1939 broadcast warnings for the alarm as a standard and allow the "user" to select warning values if "SOP's" dictate.

TANK LEVEL GAUGE ☐ ☐

The apparatus shall be equipped with a Tank Level Gauge for indicating water or foam level. The Tank Level Gauge shall indicate the liquid level or volume on an easy to read LED display and show increments of 1/8 of a tank.

Each tank level gauge system shall include:
1) A pressure transducer that is mounted on the outside of the tank in an easily accessible area. Sealed foam tanks will require zero pressure vacuum vents.
2) A super bright LED display viewable from 180 degrees with a visual indication at nine accurate levels.
3) A set of weather resistant connectors to connect to the digital display, to the pressure transducer and to the apparatus power. Additional (slave) displays (if requested) are to be

Bidder Complies	
Yes	No

easily integrated and will receive data from the same source as the Master Display. No additional transducers shall be required.
4) The system shall include the ability to display “text messages”
5) The system shall include built-in diagnostic capabilities.

MECHANICAL SHAFT SEAL ☐ ☐

Shaft seal to be sealed with a double lip oil seal to keep road dirt and water out of pump gearbox.

PTO PUMP MOUNTS ☐ ☐

Extra heavy duty pump mounting brackets shall be furnished. These shall be bolted to the frame rails in such a position to perfectly align the pump with the PTO, so that the angular velocity of the drive line joints shall be the same on each end of the drive shaft. This shall assure full capacity performance with a minimum of vibration. Mounting hardware shall utilize Grade 8 bolts.

PUMP CERTIFICATION ☐ ☐

The pump shall be third party performance tested to meet the requirements of NFPA-1901. To ensure top quality and integrity, the test company shall be Underwriters Laboratories (UL).

The pump module shall be a welded frame work utilizing structural aluminum components properly braced to withstand the rigors of chassis frame flex.

******* DISCHARGES & ACCESSORIES - SIDE MOUNT *******

FRONT DISCHARGE ☐ ☐

A 2 1/2" front #1 discharge shall be plumbed to the front bumper of the vehicle.

The front #1 discharge shall terminate on the top officer side of the front bumper extension gravel shield with a chrome 2 1/2" Nation Standard Thread (NST) swivel adapter.

The front #1 discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the front of the vehicle.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability. Automatic discharge drains shall be provided at all low points in the plumbing.

Bidder Complies	
Yes	No

The front #1 discharge cap provided as standard equipment shall be deleted.

HORIZONTAL PRECONNECT #1 ☐ ☐

A Driver Side preconnected hose bed capable of holding a minimum of preconnected 1 ¾ attack hose with nozzle attached shall be provided and plumbed from the pump to a hose trough on top of the DS compartment cap for quick attack deployment. The hose trough flooring shall be constructed from brushed finished aluminum material with a composite type flooring capable of allowing air movement around the hose.

The preconnected discharge shall terminate above the hose bed floor with a 1 1/2" NSTM chicksan swivel adapter. The pre-connected hose shall be capable of being deployed off the driver side near the center of the hose trough through a hinged door and out the end of the hose trough towards the rear of the apparatus without kinking the hose at the coupling connection.

The preconnected #1 discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to preconnect hose trough.

PUMP ENCLOSURE HOSEBED HOSE RETENTION ☐ ☐

The preconnects shall be furnished with straps to secure the hose stored in the well. The straps shall be attached to each side of the hose well with stainless steel footman loops.

BOOSTER REEL #1 DISCHARGE ☐ ☐

A 1 1/2" booster reel discharge shall be plumbed from the pump to the booster reel.

The booster reel discharge shall be plumbed from the valve to the hose reel utilizing 1" high pressure hose. The end of the hose connected to the hose reel shall be equipped with a swivel end for ease in hose replacement.

BOOSTER REEL #1 ☐ ☐

One (1) painted steel electric rewind booster reel shall be furnished. The reel shall be equipped with a one (1) inch 90° full flow swivel joint and an adjustable brake for freewheeling, drag or full lock operation. Color shall be graphite.

The booster reel #1 shall be mounted at the apparatus rear, in a framework mounted to the chassis frame rails.

Booster reel rewind shall be controlled by a push button on the rear body panel near

Bidder Complies	
Yes	No

the rear step compartment. The booster reel circuit shall be equipped with a shielded toggle switch to act as a booster reel disconnect to avoid accidental actuation of the booster reel rewind button.

Each booster reel shall be equipped with 200' of 1" booster hose in 100' sections. Each length shall be fitted with NST couplings.

Two (2) horizontal hose rollers of polished stainless steel and guide spools shall be placed one (1) on each body side panel.

A captive roller arrangement shall be provided around the perimeter of the rear opening of the hose reel storage area allowing hose to be pulled out in any direction.

REMOTE CAB WATER LEVEL GAUGE

The water tank shall be equipped with an additional Class 1, model #ITL, mini Intelli-Tank, *or approved equal*, water tank level gauge for indicating water level. The level gauge shall be located in the cab. The tank level gauge shall indicate the liquid level on an easy to read display and show increments of 1/20 of a tank. A set of weather resistant connectors to connect to the digital display and a remote driver module shall be provided.

This water gauge shall be activated when battery switch is on.

A remote relay module shall be provided to provide outputs for large indicator lights on the side of the vehicle.

LARGE LIGHT WATER LEVEL GAUGE, EACH SIDE OF CAB

A large light water level gauge system shall be provided on both sides of the cab. Each side shall have a Whelen model PSTANK, *or approved equal*, LED strip light, surface mounted, behind the door above the handrail.

The strip light shall indicate the following water levels:

Green LED cluster	Full tank
Blue LED cluster	3/4 tank
Amber LED cluster	1/2 tank
Red LED cluster	1/4 tank

The red LED's shall burn steady to indicate 1/4 tank and shall start to flash when the water level drops below 1/4 tank. To prevent distraction to drivers, this tank level gauge shall be wired to display only when the park brake is engaged.

Bidder Complies	
Yes	No

LARGE LIGHT WATER LEVEL GAUGE, REAR OF BODY ☐ ☐

A large light water level gauge system shall be provided on the rear of the body. The Whelen model PSTANK, *or approved equal*, LED strip light shall be surface mounted.

The strip light shall be mounted as to indicate the following water levels:

Green LED cluster	Full tank
Blue LED cluster	3/4 tank
Amber LED cluster	1/2 tank
Red LED cluster	1/4 tank

The red LED's shall burn steady to indicate 1/4 tank and shall start to flash when the water level drops below 1/4 tank. To prevent distraction to drivers, this tank level gauge shall be wired to display only when the park brake is engaged.

WATER TANK ☐ ☐

The water tank shall have a capacity of 2500 gallons, constructed from polypropylene material.

The tank should be designed to withstand a fill rate at 1800 gpm.

TANK CONSTRUCTION ☐ ☐

The Poly water tank shall be constructed of PT3 polypropylene material. This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from 1/2 to 1" as required. Internal baffles are generally 3/8" in thickness.

The tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments. Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity. The tank construction shall include PolyProSeal, or approved equal, technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method will provide a liquid barrier offering leak protection in the event of a weld compromise. The top of the booster tank is fitted with removable lifting assembly designed to facilitate tank removal. The transverse and longitudinal swash partitions shall be manufactured of a minimum of 3/8" PT3 polypropylene. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are

	Bidder Complies	
	Yes	No

completely fused to each other as well as to the walls of the tank. All partitions and spacing shall comply with NFPA 1901. The walls shall be welded to the floor of the tank providing maximum strength as part of the tank's unique Full Floor Design. Tolerances in design allow for a maximum variation of 1/8" on all dimensions.

CAPACITY CERTIFICATION ☐ ☐

All tanks shall be tested and certified as to capacity on a calibrated and certified tilting scale. Each tank shall be weighed empty and full to provide precise fluid capacity. Each Poly Tank shall be delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight.

TANKNOLOGY TAG ☐ ☐

A tag shall be installed on the apparatus in a convenient location and contain pertinent information including a QR code readable by commercially available smart phones. The information contained on the tag shall include the capacity of the water and foam (s), the maximum fill and pressure rates, the serial number of the tank, the date of manufacture, the tank manufacturer, and contact information. The QR code will allow the user to connect with the tank manufacturer for additional information and assistance.

ISO CERTIFICATION ☐ ☐

The tank must be designed and fabricated by a tank manufacturer that is ISO 9001:2000 certified in each of its locations. The ISO certification must be to the current standard in effect at the time of the design and fabrication of the tank.

WATER TANK FILL TOWER ☐ ☐

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" PT3 polypropylene and shall be a minimum dimension of 15.75" x 24" outer perimeter. The fill tower shall be blue in color indicating that it is a water-only fill tower. The tower shall be located in the center of the tank unless otherwise specified by the tank manufacturer to the purchaser. The tower shall have a 1/4" thick removable polypropylene screen and a PT3 polypropylene hinged cover. The capacity of the tank shall be engraved on the top of the fill tower lid. Inside the fill tower there shall be a combination vent/overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of that is designed to run through the tank, and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 so as to not interfere with rear tire traction.

OVERFLOW AND VENT PIPE ☐ ☐

The fill tower shall be fitted with an integral 8" I.D. schedule 40 P.V.C. combination

Bidder Complies	
Yes	No

overflow/vent pipe running from the fill tower through the tank to an 8" coupling flush mounted into the bottom of the tank to allow water to overflow behind the chassis rear axle.

WATER TANK SUMP ☐ ☐

The tank sump shall be a minimum of 43" wide x 21" long x 17" deep. An anti-swirl plate shall be mounted inside the sump, approximately 1" above the bottom of the sump.

A 3" drain plug shall be provided.

OUTLETS ☐ ☐

There shall be two (2) standard tank outlets; one for tank-to-pump suction line which shall be a minimum of 4" coupling and one for a tank fill line which shall be a minimum of a 2" N.P.T. coupling. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank.

WATER TANK MOUNTING ☐ ☐

The tank shall rest on the body cross members spaced a maximum of 22" apart, and shall be insulated from these cross members with a minimum of 3/8" nylon webbing or 1/2" rubber, 2-1/2" wide. The tank shall sit cradle-mounted using four (4) corner angles of 6 x 6 x 4 x 0.250 welded directly to the body cross members. The angles shall keep the tank from shifting left to right or front to rear. The tank is designed on the free-floating suspension principle and shall not require the use of hold downs. The tank shall be completely removable without disturbing or dismantling the apparatus body structure. The hose bed cross braces shall act as water tank retainers.

10" STAINLESS STEEL DUMP WITH ELECTRIC ACTUATOR - REAR ☐ ☐

The rear of the water tank shall be equipped with a 10" Newton model #1080-34, *or approved equal*, Stainless Steel Dump Valve The dump valve shall be electronically actuated. The dump valve setup shall be capable of discharging the water tank contents at a rate of at least 1800 G.P.M.

STAINLESS STEEL 18" ELECTRIC TELESCOPING CHUTE - REAR ☐ ☐

The rear Dump shall be equipped with a Newton Model #5018-34, *or approved equal*, 18" electric telescoping, stainless steel dump chute.

REAR DUMP SWITCHING - DRIVER SIDE ☐ ☐

The rear dump switching shall be installed on the driver side of the rear body panel. The switch shall be a toggle style switch installed in a protective cast enclosure with a hinged

	Bidder Complies	
	Yes	No

door. A light shall be installed inside the enclosure to illuminate the switching area. This light shall be activated whenever the vehicle marker lights are turned on.

REAR DUMP SWITCHING - IN CAB ☐ ☐

The rear dump shall be switched by a momentary style switch from inside the cab. The switch shall be located in an area near the driver and shall be a guarded style switch.

REAR CHUTE SWITCHING - DRIVER SIDE ☐ ☐

The rear chute switching shall be installed on the driver side of the rear body panel, next to the dump switch. The switch shall be a toggle style switch.

10" STAINLESS STEEL DUMP WITH ELECTRIC ACTUATOR - DRIVER SIDE ☐ ☐

The driver side of the water tank shall be equipped with a 10" Newton Model #1080A-34, *or approved equal*, Stainless Steel Dump Valve. The dump valve shall be ELECTRICALLY actuated. The dump valve setup shall be capable of discharging the water tank contents at a rate of at least 1800 G.P.M.

STAINLESS STEEL 18" ELECTRIC TELESCOPING CHUTE - DRIVER SIDE ☐ ☐

The driver's side Dump shall be equipped with a Newton Model #5018-24, *or approved equal,* 18" electric telescoping, stainless steel dump chute. The primary switch for the chute shall be adjacent to the respective dump valve switch.

A polished stainless steel cover shall be provided on the driver's fender to cover the dump cutout when the chute is in the retracted position. The cover shall be hinged at the top and held in position by a gas-shock stay-arm. The cover shall include a switch tied into the compartment door ajar alarm circuit to notify the operator if the door does not retract properly.

DRIVER SIDE DUMP SWITCHING - REAR OF BODY ☐ ☐

The driver dump switching shall be installed on the driver side of the rear body panel. The switch shall be a toggle style switch installed in a protective cast enclosure with a hinged door. A light shall be installed inside the enclosure to illuminate the switching area. This light shall be activated whenever the vehicle marker lights are turned on.

DRIVER SIDE DUMP SWITCHING - IN CAB ☐ ☐

The driver side dump shall be switched by a momentary style switch from inside the cab. The switch shall be located in an area near the driver and shall be a guarded style switch.

Bidder Complies	
Yes	No

DRIVER SIDE CHUTE SWITCHING - REAR BODY PANEL ☐ ☐

The driver's side chute switching shall be installed on the driver side of the rear body panel, next to the dump switch. The switch shall be a toggle style switch.

10" STAINLESS STEEL DUMP WITH ELECTRIC ACTUATOR - OFFICER SIDE ☐ ☐

The officer side of the water tank shall be equipped with a 10" Newton Model #1085A-34, *or approved equal*, Stainless Steel Dump Valve The dump valve shall be electrically actuated. The dump valve setup shall be capable of discharging the water tank contents at a rate of at least 1800 G.P.M.

STAINLESS STEEL 18" ELECTRIC TELESCOPING CHUTE - OFFICER SIDE ☐ ☐

The officer's side Dump shall be equipped with a, 18" Newton Model #5018-34, *or approved equal*, electric telescoping, stainless steel dump chute. The primary switch for the chute shall be adjacent to the respective dump valve switch.

A polished stainless steel cover shall be provided on the officer's fender to cover the dump cutout when the chute is in the retracted position. The cover shall be hinged at the top and held in position by a gas-shock stay-arm. The cover shall include a switch tied into the compartment door ajar alarm circuit to notify the operator if the door does not retract properly.

OFFICER SIDE DUMP SWITCHING - REAR OF BODY ☐ ☐

The officer dump switching shall be installed on the officer side of the rear body panel. The switch shall be a toggle style switch installed in a protective cast enclosure with a hinged door. A light shall be installed inside the enclosure to illuminate the switching area. This light shall be activated whenever the vehicle marker lights are turned on.

OFFICER SIDE CHUTE SWITCHING - REAR BODY PANEL ☐ ☐

The officer's side chute switching shall be installed on the officer side of the rear body panel, next to the dump switch. The switch shall be a toggle style switch.

DIRECT TANK FILL - DRIVER SIDE ☐ ☐

One (1) 4”direct tank fill shall be provided at the rear of the body, on the driver side, as low as possible. The direct tank fill shall be gated with a 4" Fireman’s Friend, *or approved equal*, (TTMA 8-bolt attachment pattern). The fill valve shall be capable of flowing at a rate in excess of 1,800 gallons per minute and will be of a self deflecting design, requiring no additional diffusion device. The fill valve shall be constructed of stainless steel, the fill shall be

	Bidder Complies	
	Yes	No

equipped with a 4” 30 degree chrome elbow terminating with a 4” female swivel connection.

DIRECT TANK FILL - OFFICER SIDE ☐ ☐

One (1) 4”direct tank fill shall be provided at the rear of the body, on the driver side, as low as possible. The direct tank fill shall be gated with a 4" Fireman’s Friend, *or approved equal*, (TTMA 8-bolt attachment pattern). The fill valve shall be capable of flowing at a rate in excess of 1,800 gallons per minute and will be of a self-deflecting design, requiring no additional diffusion device. The fill valve shall be constructed of stainless steel, the fill shall be equipped with a 4” 30 degree chrome elbow terminating with a 4” female swivel connection.

APPARATUS BODY DESIGN CONSTRUCTION ☐ ☐

The body side and compartment assemblies shall be designed and assembled to provide maximum strength and durability under all operating conditions.

Special attention shall be taken to minimize corrosion on all fabricated parts and structural members of the body. All bolt-on components shall be provided with a dissimilar metals isolation barrier to prevent electric corrosion. The body design shall also incorporate removable panels to access spring hangers, rear body mounts and fuel tank sending units.

The body assembly shall be an all-welded configuration. The body shall be completely isolated from the cab and pump module structure.

BODY AND COMPARTMENT FABRICATION - 3/16" ALUMINUM ☐ ☐

All compartment panels and body side sheets shall be entirely 3/16" aluminum (5052-H32). Each side compartment assembly shall be both plug welded and stitch welded to ensure proper weld penetration on all panels while avoiding the possible warping caused by a full seam weld. The side compartments shall be welded on a fixture to ensure true body dimensions of all door openings. The side compartments and body side panels are then set into a body squaring fixture where the super structure is installed and the entire body are aligned to be completely symmetrical. The super structure is then welded to the compartment side panels and reinforcement plates are inserted which allows the compartment panels to become an integral component of the body support structure. A full seam weld shall not be used due to the applied heat which shall distort sheet metal and remove the protective coating from the perimeter of the welded area. All seams shall be caulked prior to finish paint to ensure proper compartment seal.

100" WIDE FIRE BODY ☐ ☐

The fire body shall be 100" wide to provide the maximum amount of usable hose bed space, approximately 76" wide, and to extend the body fenderettes outward for better tire

Bidder Complies	
Yes	No

tread coverage. All lower compartments shall be 26" deep overall, all upper compartments shall be 12" deep overall.

SUPER STRUCTURE - ALUMINUM ☐ ☐

The body super structure shall be an all welded configuration utilizing a combination of 3” x 1-1/2” 6061-T6 thick walled structural tubing and 6061 structural channel.

This structure shall be designed to totally support the full length and width of the body and shall be welded to the body side compartments by use of reinforcement plates to incorporate the compartments into an integral part of the body weldment.

The super structure shall be bolted to the sides of the chassis frame at four (4) points.

STEPPING, STANDING, & WALKING SURFACES ☐ ☐

All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be No Slip type. Upon request by the Purchaser, the manufacturer shall supply proof of compliance with this requirement.

NO DRIVER SIDE COMPARTMENT

OFFICERS SIDE COMPARTMENTATION ☐ ☐

One (1) low side compartment, with a rollup door, forward of the rear wheels. Compartment dimensions 33” High x 48” Wide, with a door opening of 29” High x 45” Wide.

ROLL-UP DOOR ☐ ☐

A Roll-up door shall be provided on the compartment. The roll-up door shall be constructed from aluminum extruded slats which shall have a flexible seal between each slat for proper sealing of the door.

A synthetic rubber seal shall be provided at each side, top and bottom edge of the door to prevent entry of dirt into the compartment.

The door shall be equipped with a lift bar style latch mechanism which shall latch at the bottom of the door mounting extrusion.

The roll-up door assembly shall be furnished with a spring-loaded, counter balance assembly to assist in door actuation.

Bidder Complies	
Yes	No

ROLL-UP DOOR, SATIN FINISH ☐ ☐

The roll-up door shall be constructed of double walled and concave hard anodized aluminum extrusion laths with a smooth exterior surface. Each door slat shall have dimensions of 1.365” in height, 0.310” deep, and 0.038” wall thickness. The “interlocking joint knuckle” extrusion design shall have an integral dual durometer extruded synthetic spacer seal to reduce noise and prevent weather or debris intrusion in a closed position. Each door lath shall have inter-locking and nested polymer slide guides. Slide guides shall be punch dimpled to prevent ‘metal to metal’ contact and shall be replaceable. Sides of the door openings shall be equipped with single piece 0.069” hard anodized aluminum extruded vertical guide channels.

SWEEP-OUT COMPARTMENT FLOOR ☐ ☐

Compartment floor shall be welded to the compartment walls and have a sweep out design for easy cleaning.

The Compartment with the roll-up style door shall have the external floor flange stepped down, 1/2" high x 2" deep, to produce a sealing surface for the roll-up doors below the compartment floor. The sweep out design shall also permit easy cleaning.

BEAVERTAILS ☐ ☐

The rear body beavertail area shall be furnished with a squared off appearance to maximize the available compartment area, while providing added support to the rear step support structure. The beavertail panels shall be assembled in conjunction with the rear body corner panels. This assembly shall provide a vertical mounting surface for tail lights at the rear most portion of the body and additional storage space.

The inside of the beavertails shall be furnished with polished aluminum tread plate overlays.

COMPARTMENT TOPS ☐ ☐

Compartment tops shall be covered with polished aluminum tread plate on both sides.

COMPARTMENT DRIP MOLDING ☐ ☐

Compartment tops over all side compartments shall have a 45 degree flange formed out to provide protection against water runoff. A secondary extruded drip molding shall be provided between low compartments and auxiliary high side compartments, when auxiliary compartments are provided.

	Bidder Complies	
	Yes	No
COATED FASTENERS	☐	☐
All exterior fasteners shall be coated stainless steel screws. Screw threads shall be coated with reusable, self-locking, sealing material to provide vibration resistance. The screws are to have nuts everywhere as possible.		
COMPARTMENT LOUVERS	☐	☐
Ventilation between compartments to atmosphere shall be provided and located to avoid water entry into compartments.		
ACCESS PANELS	☐	☐
Removable access panels shall be provided in all lower compartments (if applicable) to access spring pins, fuel tank sender, electrical junction compartment and rear body mounts.		
Protective panels shall be located in the rear compartments providing access to the lights and associated wiring. The covers shall also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.		
REAR BODY PANEL	☐	☐
The rear body panel shall extend the full width between the beavertails. This panel shall be full height from the rear step to the hose bed floor. The panel shall be bolted on and removable, with no part of the rear panel attached to the booster tank. The rear body panel material shall be aluminum tread plate as standard. If Chevron striping is specified for the rear of the body then smooth aluminum shall be utilized.		
Warning lights referenced in the warning light package Zone C - Upper shall be surface mounted on the upper rear and upper rear sides of the body.		
BODY RUB RAILS	☐	☐
Sacrificial aluminum tread plate rub rails shall be mounted at the base of the body, extend outward a minimum 3/4", downward 2" and flange inward 1". The rub rails shall extend the full length of the main body and wrap around the rear body corners. Rub rails shall be designed to bolt to the body from the bottom side of the compartment area, so as not to damage the body side panels on initial impact and to provide for ease of replacement.		
RUNNING BOARD STEPS	☐	☐
The driver and officer running board steps shall be fabricated of 3/16" polished		

Bidder Complies	
Yes	No

aluminum tread plate. The outside edge on each step shall be fabricated with a double break, return flange. The steps shall be rigidly reinforced with a heavy duty support structure. The running boards shall not form any part of the compartment design, and shall be bolted into place with a minimum 1/2" clearance gap between any panel to facilitate water runoff.

REAR TAILBOARD ☐ ☐

A sixteen inch (16") rear bumper shall be supplied at the rear of the apparatus body for additional protection. The apparatus bumper (tailboard) shall be constructed with Grip for the walking surface and aluminum tread plate for the bumper corners shall feature mitered corners that will prevent snagging at the apparatus tailboard.

REAR BUMPER STORAGE WELL ☐ ☐

The rear bumper assembly shall be equipped with two (2) storage wells to provide room to store a rolled up 3" 50’ hose per well. The wells shall be constructed of aluminum with a perforated floor and mounted to the top of the tailboard one on each side.

INTERMEDIATE REAR STEP ☐ ☐

An eight (8) inch bolt on intermediate rear step, fabricated from 3/16" aluminum tread plate, shall be installed. The step shall be a minimum of 8" deep x full width of the rear tailboard.

DELETE REAR STEP COMPARTMENT ☐ ☐

A rear step compartment shall not be provided.

GRAB RAILS ☐ ☐

All hand rails shall be 1-1/4" outer diameter, polished aluminum, rubber insert type tubing, designed to meet NFPA 1901 requirements.

Molded gaskets shall be installed between the handrail stanchion castings and body surfaces to prevent electrolytic reaction between dissimilar metals and to protect paint.

GRAB RAIL LOCATIONS: ☐ ☐

Grab rails shall be provided at the following specified locations. Additional grab rails shall be provided adjacent to any additional steps specified to comply with NFPA 1901.

Two (2) vertical rails shall be mounted on the rear edge of the beavertails, one (1) each side.

	Bidder Complies	
	Yes	No

One (1) horizontal, full width handrail shall be installed on the rear, below the level of the hose bed.

FOLDING STEP(S) - BODY REAR DRIVER SIDE ☐ ☐

No folding steps shall be provided in this location.

FOLDING STEP(S) - BODY REAR OFFICER SIDE ☐ ☐

LED lighted large folding step(s) with gasket, with a textured chrome plate finish shall be provided on officer side body rear to provide NFPA compliant access (maximum 18” height between steps) to an upper horizontal walking surface (compartment cap, dunnage area, fabricated step, or upper body compartments).

Each step shall have an LED light at the top and bottom of each step to illuminate the stepping areas.

SAFETY SIGN(S) AT REAR STEP AND CROSS WALKWAY(S) ☐ ☐

Safety sign(s) shall be located on the vehicle at the rear step, and at any cross walkway(s), to warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.

REAR WHEEL WELL LINERS ☐ ☐

Fully removable, bolt-in, 1/8" aluminum fender liners shall be provided. The wheel well liners shall extend from the outer wheel well body panel, into the truck frame. Removable vertical splash shields, inward of the wheels, shall be provided to give access to the hydraulic components. The completely washable fender liners shall be designed to protect the front and rear compartments and main body supports from road salts, dirt accumulation and corrosion.

REAR FENDERETTES ☐ ☐

The tandem rear fenders shall be equipped with easily replaceable, polished stainless steel fenderettes. The fenderettes shall be equipped with a rubber gasket molding between the body panel and the fender.

REAR MUD FLAPS ☐ ☐

Heavy duty mud flaps shall be provided behind the rear wheels.

REAR TOW EYES ☐ ☐

Two (2) WHITE painted tow eyes shall be furnished on the rear of the vehicle. The tow

Bidder Complies	
Yes	No

eyes shall be made from plate steel and shall be bolted directly to the chassis frame rails with grade 8 bolts and shall extend below the body. The tow eyes shall be smooth and free from sharp edges, and have a minimum eyelet hole of 2-1/2". The tow eyes shall be painted.

HOSE BED ☐ ☐

The hose bed shall be located directly above the booster tank and shall be free from all sharp objects such as bolts, nuts, etc., to avoid damage to fire hose.

The hose bed storage area, shall have a minimum capacity of fifty (50) cubic feet, and shall accommodate 2-1/2" or larger fire hose as required by the Purchaser. The hose bed depth shall be 7".

For added strength, rigidity and appearance, the hose bed side walls shall have the top edge flanged outward two (2) inches and downward one (1) inch. In a similar fashion, the top edge of the front wall shall be flanged inward two (2) inches and downward one (1) inch.

HOSE BED FLOORING ☐ ☐

Flooring to be constructed from extruded aluminum and be properly spaced for ventilation. The flooring shall be smooth and free from sharp edges to avoid hose damage. The hose bed floor shall be removable to provide access to inner body framework.

HOSE BED PARTITION ☐ ☐

One (1) fully adjustable 3/16", brushed finish, aluminum hose bed partition shall be provided. Partition shall be easily adjustable by means of Unistrut, *or approved equal*, channels located at the front and rear of the hose bed. Partition shall be removable for access to the booster tank.

HOSE BED COVER, VINYL WITH HOOK and LOOP ☐ ☐

A hose bed cover shall be provided and installed. The cover shall be made from 22 ounce; heavy-duty vinyl coated polyester fabric. The cover shall be sewn with ultraviolet resistant thread and shall have 2" wide nylon webbing sewn around the perimeter to provide additional strength.

The cover shall be secured to the top front body flange with Velcro and quarter turn fasteners and shall be secured to the top side body flanges with hook and loop. A weighted flap shall be furnished on the rear of the cover with two (2) bungee cords.

The Hypalon material shall be red in color.

Bidder Complies	
Yes	No

****** COMPARTMENT ACCESSORIES ******

ADJUSTABLE SHELVING ☐ ☐

Compartment shelving shall be constructed of 3/16” brush finish aluminum with a 2” upward bend at front and rear, and side supports. Shelving shall be vertically adjustable with spring nuts in aluminum strut channel.

Adjustable shelves shall be located as follows:

One (1) in the officer side front compartment

PORTABLE TANK STORAGE SYSTEM ☐ ☐

A portable tank storage compartment shall be installed on the officer side compartment cap integrated into the body. The compartment shall be fabricated from 1/8" aluminum plate and shall be designed with a latching door and a roller at the bottom rear for easy removal. One (1) 4” direct tank fill shall be provided at the rear of the body, on the driver side, as low as possible. The direct tank fill shall be gated with a 4” Fireman’s Friend, *or approved equal*, (TTMA 8-bolt attachment pattern). The fill valve shall be capable of flowing at a rate in excess of 1,800 gallons per minute and will be of a self deflecting design, requiring no additional diffusion device. The fill valve shall be constructed of stainless steel. The fill shall be equipped with a 4” 30 degree chrome elbow terminating with a 4” female swivel connection with a 4” Fireman’s Friend, *or approved equal*, (TTMA 8-bolt attachment pattern). The fill valve shall be capable of flowing at a rate in excess of 1,800 gallons per minute and will be of a self deflecting design, requiring no additional diffusion device. The fill valve shall be constructed of stainless steel. The fill shall be equipped with a 4” 30 degree chrome elbow terminating with a 4” female swivel connection.

ADDITIONAL ITEMS SUPPLIED WITH THE VEHICLE ☐ ☐

- 1 - Pint of touch up paint for each color
- 1 -Bag of assorted stainless steel nuts and bolts

LOOSE EQUIPMENT ☐ ☐

The following items shall be provided and shipped loose with the completed apparatus at the time of delivery:

WHEEL CHOCKS ☐ ☐

Two (2 ZICO) #SAC-44, *or approved equal*, folding wheel chocks shall be mounted

	Bidder Complies	
	Yes	No

forward of the rear wheels on the driver side below the side running board compartments.

FOLDING WATER TANK ☐ ☐

One (1) Husky brand, *or approved equal*, 3000 gallon aluminum frame folding water tank(s) shall be provided. The tank(s) when opened shall measure 29" high by 159" square, and shall fold to a storage size of 29" high by 7" wide by 159" long. The folding tank(s) shall be equipped with 22 ounce Exlon, *or approved equal,* with floor handles

The liner(s) shall be red in color.

DEALER SUPPLIED EQUIPMENT TO BE INCLUDED IN CONTRACT

The following loose equipment shall be supplied by the apparatus dealer:

DELIVERY ☐ ☐

The apparatus and all loose equipment will be delivered to the end users location.

FINAL WASH AND DETAIL ☐ ☐

Final detail and wash before delivery for 2 door commercial

CONVENIENCE PACKAGE ☐ ☐

Customer Convenience Package for a commercial chassis will be provided. This package includes the following:

- In station repairs for all warranty items during the bumper to bumper warranty period.
- Travel time and mileage will be paid for by the apparatus dealer
- Any transportation cost will be paid for by the apparatus dealer.

****** PAINT SECTION ******

PAINT, PREPARATION AND FINISH ☐ ☐

The, Low V.O.C., polyurethane finishing system, or equal, shall be utilized. A "Clear Coat" paint finish shall be supplied to provide greater protection to the quality of the exterior paint finish.

All removable items, such as brackets, compartment doors, etc. shall be painted separately to insure finish paint behind mounted items. All compartment unwelded seams exposed to high moisture environments shall be sealed using permanent pliable caulking prior to finish paint.

	Bidder Complies	
	Yes	No
BODY PRIMER & PREPARATION	☐	☐
All exposed welds shall be ground smooth for final finishing of areas to be painted. The compartments and doors are totally degreased and phosphatized. After final body work is completed, grinding (36 and 80 grit), and finish sanding shall be used in preparation for priming.		
BODY FINISH PAINT	☐	☐
The body shall be finish sanded and prepared for final paint. Upon completion of final preparation, the body shall be painted utilizing the highest quality, state of the art, low V.O.C., polyurethane base paint. Finish paint shall be applied in multiple coats to ensure proper paint coverage with a high gloss finish.		
The entire body shall be buffed and detailed.		
BODY PAINT	☐	☐
The inside and underside areas of the complete body assembly shall be painted black, prior to the installation of the body on the chassis or torque box.		
COMPARTMENT PAINT	☐	☐
The interior of the compartments shall be finish painted with White Marble Stone scuff resistant paint to provide a protective application over all of the compartment interior surfaces.		
BODY PAINT	☐	☐
The body paint finish shall be a single color, to match customer furnished paint codes and requirements.		
PUMP PAINT	☐	☐
The pump within the pump enclosure shall be painted black. The plumbing is not required to be painted.		
CHASSIS CAB PAINT	☐	☐
The commercial cab exterior shall be finish painted in a single color by the chassis manufacturer with Purchaser's choice of color as available.		
WHEEL PAINT	☐	☐

	Bidder Complies	
	Yes	No

The chassis wheels shall be painted as provided by the commercial chassis manufacturer.

TOUCH-UP PAINT ☐ ☐

One (1) pint of each exterior color paint for touch-up purposes shall be supplied when the apparatus is delivered to the end user.

FINALIZATION & DETAILING ☐ ☐

Prior to delivery the vehicle, the interior and exterior be cleaned and detailed. The finalization process detailing shall include installation of NFPA required labels, checking fluid levels, sealing and caulking required areas of the cab and body, rust proofing, paint touch-up, etc.

RUST PROOFING ☐ ☐

The entire unit shall be thoroughly rust proofed utilizing rustproof and sound deadening materials applied in manufacturer recommended application procedures. Rust proofing shall be applied during the assembly process and upon completion to insure proper coverage in all critical areas.

****** LETTERING AND STRIPING ******

COMPUTER GENERATED LETTERING ☐ ☐

The lettering and striping shall be custom designed utilizing state of the art computer software and computerized cutting machines. The manufacturer shall employ a full time artist / designer to generate all lettering, decals, and striping to meet the requirements of the Fire Department. The artwork for the lettering and striping shall be kept on record by the apparatus manufacturer to allow for ease in duplication for the Fire Department.

FRONT CAB DOOR LETTERING ☐ ☐

Reflective with drop shadow lettering shall be provided on the cab driver's and officer's doors per the fire department requirements. The design of the lettering on the cab doors shall be designed to fit in the 496 sq. inches available.

Lettering provided on the driver's and officer's cab doors shall be 3" high.

LETTERING SIDE OF HOOD ☐ ☐

Reflective with drop shadow lettering shall be provided on the area of the hood close

Bidder Complies	
Yes	No

to the cab per the fire department requirements.

WINDSHIELD LETTERING ☐ ☐

Reflective with drop shadow lettering provided on the upper portion of the windshield shall be 3" high.

FRONT BUMPER NUMBERS ☐ ☐

Reflective with drop shadow Numbers provided on both side of front bumper.

BODY SIDE SHEET LETTERING ☐ ☐

Reflective with drop shadow lettering shall be provided on the body side sheet per the fire department requirements. The design of the lettering on the body side sheet shall be designed to fit in the 2500 sq. inches available.

Lettering provided on the body side sheet shall be 6" high.

LETTERING FONT ☐ ☐

The lettering shall be designed and cut with a basic block type font:

"BLOCK TYPE FONT"

****** NFPA REQUIRED Reflective STRIPING ******

STRIPE ☐ ☐

A six (6) inch high Reflective stripe shall be provided. The stripe shall be applied on a minimum of 60 percent of each side of the unit, 60 percent on the rear of the unit and 40 percent on the front of the unit. The Reflective stripe layout shall be determined by the Fire Department.

The Reflective Stripe shall be white in color.

A six (6) inch custom fold shall be incorporated into the Reflective scheme on the body. Final layout of this configuration shall be determined by the Fire Department.

ACCENT STRIPES ☐ ☐

A 1" high Reflective material accent stripe shall be incorporated into the scheme to border the primary stripe on the top and bottom edges. Final layout of this configuration shall

	Bidder Complies	
	Yes	No
be determined by the Fire Department.		
REAR CHEVRON STRIPING	☐	☐
At least 50% of the rear facing vertical surface shall be covered with alternating strips of reflective striping.		
The striping shall be 6" Diamond Grade.		
The Diamond Grade shall be Red and Fluorescent Yellow Green in color.		
DOOR CHEVRON STRIPING	☐	☐
If possible any metal surface located on the inside bottom half of the driver and officer side doors shall have alternating strips of reflective striping.		
******* WARRANTIES & REQUIRED INFORMATION *******		
WARRANTY - NEW PRODUCT - COMMERCIAL CHASSIS (7 YEARS FROM DATE OF DELIVERY BUMPER TO BUMPER WARRANTY)	☐	☐
WARRANTY - BODY STRUCTURE	☐	☐
The proposed body will be warranted against structural defects for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.		
WARRANTY - CORROSION	☐	☐
The proposed body will be warranted against rust-through or perforation, due to corrosion from within, for a period of ten (10) years. Perforation is defined as a condition in which an actual hole occurs in a sheet metal panel due to rust or corrosion from within. Surface rust or corrosion caused by chips or scratches in the paint is not covered by this warranty.		
WARRANTY - PAINT	☐	☐
The proposed paint finish will be warranted for a period of seven (7) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.		
WARRANTY - LETTERING 7 years from date of delivery	☐	☐

	Bidder Complies	
	Yes	No
WARRANTY - BRIGHTWORK 7 years from date of delivery	☐	☐
WARRANTY - STAINLESS STEEL PLUMBING WARRANTY The proposed stainless steel plumbing will be warranted for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.	☐	☐
WARRANTY - WATER TANK The proposed water tank will be warranted by the water tank manufacturer for the "Lifetime" of the unit. A copy of the manufacturer's warranty will be supplied to define additional details of the warranty provisions.	☐	☐
WARRANTY - FIRE PUMP 7 years from date of delivery	☐	☐
WARRANTY - HEAVY DUTY VALVES 7 years from date of delivery	☐	☐