

Specification for: HAMPSTEAD FIRE DEPARTMENT

Request for Proposal

Town of Hampstead, New Hampshire



Fire Department 3000 Gallon Fire Tanker

PROPOSALS DUE DATE/TIME: June 11, 2012 - NO LATER THAN 4:00 PM

June 2012

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PUBLIC / LEGAL NOTICE:



Town of Hampstead, New Hampshire

REQUEST FOR PROPOSALS

3000 Gallon Tanker Fire Truck

The Town of Hampstead, NH is currently seeking Proposals for a 3000 Gallon Tanker for the Fire Department. Vehicle specifications can be obtained from the Town of Hampstead Town Offices, 11 Main Street, Hampstead, NH 03841, phone: (603) 329-4100 or from the Town's web site <http://www.hampsteadnh.us> All submissions are due by June 11, 2012, 4p.m. at the Hampstead Town Offices, 11 Main Street (Town Selectmen's Office) Hampstead, NH 03841. Please address the bid package as follows:

Fire Department Fire Tanker
Attention: Sally Theriault, Administrative Assistant
Town Office
11 Main Street
Hampstead, NH 03841

The Town reserves the right to reject any or all proposals or any part thereof, to waive any formality, informality, information and/or errors in the proposal, to accept the proposal considered to be in the best interest of the Town.

Contact information: Chief Michael Carrier (329-6006 - 46c1hfd@comcast.net)

GENERAL TERMS AND CONDITIONS

PREPARATION OF PROPOSALS:

Proposals shall be submitted on the forms provided in Attachments 1, and 3. All forms must be signed by the Proposer or the Proposer's authorized representative. The person signing the proposal shall initial any corrections to entries made on the proposal forms. Two sets of proposals must be submitted.

Proposers must quote on all items appearing on the proposal forms unless specific directions in the advertisement, on the proposal form or in the special provisions allowed for partial Proposals. Failure to quote on all items may disqualify the proposal. When proposals on all items are not required, Proposers shall insert the words "no proposal" where appropriate.

Alternative proposals will be considered, unless otherwise stated, only if the alternate is:

1. Described completely, including, but not limited to, sample(s), if requested, and specifications sufficient so that a comparison to the request can be made; and
2. Submitted as part of the base proposal response, i.e. it shall not be a separate document which could be construed as a second proposal.

Unless otherwise stated in the Request for Proposal (RFP), the Proposer agrees that the proposal shall be deemed open for acceptance for Sixty (60) calendar days subsequent to submittal to the Town of Hampstead.

The Proposer shall not divulge, discuss or compare this proposal with other Proposers and shall not collude with any other Proposer or parties to a proposal whatever. (Note: No premiums, rebates or gratuities permitted either with, prior to, or after any delivery materials is allowed. Any such violation will result in the cancellation and/or return of materials, as applicable, and the removal from Proposal List).

The name of manufacturer, trade name, or model number mentioned in this Request for Proposal is for the purpose of designating a minimum standard of quality and type. Such references are not intended to be restrictive, although specified color, type of material and specified measurements may be mandatory. Proposals will be considered for any brand which meets or exceeds the quality of the specifications listed. On all such proposals, the Proposer shall specify the product they are proposing and shall supply sufficient data to enable a comparison to be made with the particular brand or manufacturer specified. Failure to submit the above may be sufficient grounds for rejection of the proposal.

Vehicles shown for demonstration purposes shall be delivered and displayed free of charge and shall be removed by the vendor at no cost to the Town. Said demonstration units shall not be offered to the Town as new apparatus unless mutually agreed to.

The vendor may be required to supply proof of compliance with proposal specifications. When requested, the vendor must immediately supply the Town with certified test results or certificates of compliance. Where none are available, the Town may require independent laboratory testing.

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All costs for such testing, certified test results or certificates of compliance shall be the responsibility of the vendor.

Unless otherwise stated, all prices are F.O.B.: Destination. No charge for packing or drayage will be allowed. C.O.Ds will not be accepted.

SUBMISSION OF PROPOSALS:

Proposals must be submitted as directed in the Request for Proposals, and on the forms provided unless otherwise specified. Proposals shall include a copy of RFP with all sections completed fully to include forms and written compliance (or non-compliance) with all sections of the specification. Proposals must be typewritten or printed in ink. Proposals must be mailed or delivered in person. Proposals that are faxed or e-mailed will not be accepted.

WITHDRAWAL OF PROPOSALS:

Proposals may be withdrawn prior to the opening date and time upon written, faxed, e-mailed or telegraphic request of the Proposer to the Purchasing Agent. Negligence on the part of the Proposer in preparing this proposal shall not constitute a right to withdraw a proposal subsequent to the proposal opening. Proposals may not be withdrawn for a period of sixty (60) days after the date of opening indicated herein or as modified by addenda.

RECEIPT AND OPENING OF PROPOSALS:

Proposals shall be submitted prior to the time fixed in the Request for Proposals. Proposals received after the time so indicated shall be returned unopened.

PROPOSAL RESULTS:

All proposals received shall be considered confidential and not available for public review until after a vendor has been selected. All proposals shall be subject to negotiations prior to the award of a contract.

NO TELEPHONE REQUESTS FOR RESULTS WILL BE ACCEPTED OR GIVEN.

LIMITATIONS:

This Request for Proposal (RFP) does not commit the Town to award a contract, to pay any costs incurred in the preparation of a response to this request, or to procure or contract for services or supplies. The Town reserves the right to accept or reject any or all proposals received as a result of this request, or to cancel in part or in its entirety this RFP, if it is in the best interest of the Town to do so.

TRADE IN:

The purchaser requires all bidders to offer a value for a 1985 E-One 3500 Gallon Tanker. The purchaser makes no representations as to the condition of the vehicle. Bidders will make their offer on an "as is" basis. The purchaser reserves the right to split the award, whereby the

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contract for the new apparatus purchase may go to one bidder while the sale of the used vehicle (s) may go to another bidder, or be rejected entirely individually or collectively. Whereas, the town also reserves the right to sell the vehicle to other buyers outside of this process. (See Attachments A and B)

PROPOSAL EVALUATION:

The Fire Chief and/or his designee(s) will review and screen all proposals. Proposals will be evaluated with respect to the following:

- Vendor qualifications and experience constructing Tanker trucks.
- Safety of Fire Department staff and public while operating in or around the proposed vehicle.
- Quality of materials and workmanship.
- The vendor's ability to meet the desired specification, as submitted.
- The vendor's ability to deliver the vehicle in a desired period of time.
- Completeness, technical competence and clarity of the proposal.
- References related to similar projects.
- The stated Proposal matches to the quality, thoroughness of the work product proposed.
- The vendor's ability to provide prompt quality repair services.

It will be the responsibility of the Fire Chief and/or his designee(s) to rank the candidates in order of qualification on the basis of the evaluation of the written responses to the Request for Proposal. Following the initial ranking based on qualifications, the price proposals of all vendors will be considered. The Fire Chief and/or his designee(s) will then perform a final ranking to recommend the top Proposal to the Town's Board of Selectmen for award. Price is not the determining factor in the selection process, but it may impact final ranking.

AWARD OF CONTRACT:

Any contract entered into by the Town shall be in response to the proposal and subsequent discussions. It is the policy of the Town that contracts are awarded, among other considerations, only to responsive and responsible Proposers. In order to qualify as responsive and responsible, a prospective vendor must meet the following standards as they relate to this request:

- Have adequate financial resources for performance or have the ability to obtain such resources as required during performance;
- Have the necessary experience, organization, technical and professional qualifications, skills and facilities;
- Be able to comply with the proposed or required time of completion or performance schedule;
- Have a demonstrated satisfactory record of performance.
- Adhere to the specifications of this proposal and provide all documentation required of this proposal The contract will be awarded to a responsive and responsible Proposer based on the qualifications and experience of the Proposer, the quality of the equipment/product/service to be provided, the Proposer's ability to provide ongoing technical support, the Proposer's timeframe for providing the equipment/product/service and the Proposer's fee/price proposal.

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The Proposer selected will be the most qualified and not necessarily the Proposer with the lowest price. The Town of Hampstead reserves the right to waive any formality, informality, information and/or errors in the proposals submitted and the right to reject any or all proposals at its discretion and to accept the proposal which will be in the best interest of the Town; or to purchase on the open market if it is considered in the best interest of the Town to do so. In case of error in the extension of prices, the unit prices proposed shall govern and the unit prices in writing shall take precedence over the unit prices in figures. Also, in the event of a discrepancy between the total of the items and the lump sum total stated, the total of the items shall govern.

MODIFICATIONS AFTER AWARD:

The Town reserves the right to incorporate minor modifications, which may be required by it. The Vendor will incorporate these changes at no additional cost, but may protest such action and not be bound by any such request of it can prove that the timing or extent of the modifications implies a major effort on its part.

PERFORMANCE BOND:

A 100% Performance Bond shall be supplied within thirty (30) days of bid award. The signatures of both Town and bidder on the contract shall construe awarding of the bid. The prime apparatus builder shall provide the performance bond. Any bonds supplied by the dealer or representative shall not be acceptable. **NO EXCEPTION**

PENALTY CLAUSE:

There will be a \$100.00 per day late fee assessed for each calendar day the completed unit is not in the customer's Fire Station, after the determined award date to a manufacturer. It is the customer's requirement to have the unit by 1 March 2013. **NO EXCEPTION**

CANCELLATION OF AWARD:

The Town reserves the right to cancel the award without liability to the Proposer at any time before a contract has been fully executed by all parties and is approved by the Town.

CONTRACT:

Any Contract between the Town and the Vendor shall consist of (1) the Request for Proposal (RFP) and any amendments thereto and (2) the Vendor's proposal in response to the RFP. In the event of a conflict in language between documents (1) and (2) referenced above, the provisions and requirements set forth and referenced in the RFP shall govern. However, the Town reserves the right to clarify any contractual relationship in writing with the concurrence of the Vendor, and such written clarification shall govern in case of conflict with the applicable requirements contained in the RFP and the Vendor's proposal. In all other matters, not affected by written clarification, if any, the RFP shall govern. The submitter is cautioned that this proposal shall be subject to acceptance without further clarification.

EXECUTION OF AGREEMENT:

The successful Proposer shall sign (execute) the necessary agreements for entering into the contract and return such signed agreements to the Town, along with the fully executed surety bonds, within ten (10) calendar days from the date mailed or otherwise delivered to the successful proposer.

APPROVAL OF AGREEMENT:

Upon receipt of the agreement that has been fully executed by the successful Proposer, the owner shall complete the execution of the agreement in accordance with local laws or ordinances and return the fully executed agreement to the Vendor. Delivery of the fully executed agreement, along with a Notice to Proceed and a Town purchase order, to the Vendor shall constitute the Town's approval to be bound by the successful Proposer's proposal and the terms and conditions of the agreement.

FAILURE TO EXECUTE AGREEMENT:

Failure of the successful Proposer to execute the agreement within ten (10) calendar days from the date mailed or otherwise delivered to the successful Proposer shall be just cause for cancellation of the award.

DISQUALIFICATION:

Awards will not be made to any person, firm or company in default of a contract with the Town, the State of New Hampshire, or the Federal Government.

INSURANCE:

The successful proposer shall procure and maintain insurance, in the amounts and coverage detailed by the proposal documents, acceptable to the Town, at the proposer's sole expense, with reputable and financially responsible insurance companies, insuring against any and all public liability, including injuries or death to persons and damage to property, arising out of or related to the goods or proposer's performance hereunder and shall furnish to the Town certificates of such insurance and renewals thereof signed by the issuing company or agent upon the Town's request. Such certificates shall name the Town of Hampstead as an additional insured. Such policies shall provide for cancellation only subsequent to 30 days prior written notice to the Town. The Town's examination of, or failure to request or demand, any evidence of insurance hereunder, shall not constitute a waiver of any requirement and the existence of any insurance shall not limit the proposer's obligation under any provision hereof. Except to the extent of comparable insurance acceptable to or express waiver by the Town, the proposer shall, or shall cause any carrier engaged by the proposer, to insure all shipments of goods for full value.

If the agreement with the proposer involves the performance of work by the proposer's employees at property owned or leased by the Town, the proposer shall furnish such additional insurance as the Town may request in respect thereof, but in any event and without such request, workers' compensation insurance and unemployment compensation insurance as required by

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laws of the State of New Hampshire and public and automotive liability and property damage insurance. In no event shall such employees of the proposer be deemed to be the employees of, or under the direction or control of the Town for any purpose whatsoever.

WORKER'S COMPENSATION:

All proposers and subvendors at every tier under the proposer will conform with the requirements of NH RSA 281 Title XXIII, Section 281-A:2 with close attention to sections VI(a), VI(c) and VII(a) as well as Section 281-A:4.

DISAGREEMENTS AND DISPUTES:

All disagreements and disputes, if any, arising under the terms of any agreement, either by law, in equity, or by arbitration, shall be resolved pursuant to the laws and procedures of the State of New Hampshire, in which state any agreement shall be deemed to have been executed. No action at law, or equity, or by arbitration shall be commenced to resolve any disagreements or disputes under the terms of any agreement, in any jurisdiction whatsoever other than the State of New Hampshire and Rockingham County.

TERMINATION OF CONTRACT FOR CAUSE:

If, through any cause, the Vendor shall fail to furnish in a timely and proper manner its obligations under any Contract, or if the Vendor shall violate any of the covenants, agreements or stipulations of any Contract, the Town shall thereupon have the right to terminate any Contract by giving written notice to the Vendor of such termination. In such event, all finished or unfinished work, services, plans, data programs and reports prepared by the Vendor under this Contract shall become the Town's property and the Vendor shall be entitled to receive just and equitable compensation for any satisfactory work completed.

Notwithstanding the above, the Vendor shall not be relieved of liability to the Town for damages sustained by the Town by virtue of any breach of any contract, and the Town may withhold any payments until such time as the exact amount of damages due the Town is determined.

OWNERSHIP OF REPORTS:

All data, materials, plans, reports and documentation prepared pursuant to any contract between the Town of Hampstead and the successful proposer shall belong exclusively to the Town.

ASSIGNMENT PROVISION:

The successful proposer hereby agrees that it will assign to the Town of Hampstead all cause of action that it may acquire under the anti-trust laws of New Hampshire and the United States as the result of conspiracies, combination of contracts in restraint of trade which affect the price of goods or services obtained by the Town under this contract if so requested by the Town of Hampstead.

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DELIVERY:

Deliveries are to be made only to the location indicated on the order and in accordance with accepted commercial practices, without extra charge for packing or containers. Deliveries, which do not conform to the specifications or are not in good condition upon receipt, shall be replaced promptly. Deliveries shall be accepted weekdays between the hours of 8:30 AM and 3:30 PM unless otherwise stated. Delivery arrangements must be made with the Fire Chief prior to delivery.

PAYMENT:

Unless otherwise stated, payment will be made within thirty (30) days of the completion of delivery of all items or service, in acceptable condition, to the Town and receipt of invoice, whichever is later.

ASSIGNMENT OR SUB-CONTRACTING:

None of the work or services covered by the contract shall be assigned in full or in part, or subcontracted without the prior approval of the Town.

EXCLUSIVITY:

This contract will be for the goods/services described above; however, this agreement should not be considered exclusive. As deemed necessary, the Town reserves the right to obtain these goods/services from any other vendor.

PRICING:

Unless otherwise specified all prices listed are firm for the term of the contract. All prices should include all labor, material and transportation costs, and any discounts offered. No fuel surcharges shall be allowed at any time.

PRE-PAYMENT:

The submitted RFP should include any discounts offered for full or partial pre-payment of the truck.

AUDIT:

For a period of at least three (3) years after completion of any contract, it is the responsibility of the vendor to make available at the vendor's place of business, upon demand, all price lists, documents, financial records and other records pertaining to purchases made and /or work performed under contract for the purposes of audit by the Town of Hampstead.

INSPECTION & EVALUATION:

The Town of Hampstead reserves the right to inspect the vendor's facilities during operating hours to determine that the level of inventory is adequate for the Town's needs. The conditions and operations of the facility may be taken into consideration in making the award of this contract.

GUARANTEES & WARRANTY:

All parts and labor related to agreements must be guaranteed and include a warranty. If any work is unable to be guaranteed, the vendor must inform the Town, in writing, prior to the delivery of an item or any work being performed. Non-guaranteed work must be offered at a discount rate from the proposal prices. **Inspection, testing and final determination of non-warranty work shall be performed at no cost to the Town.**

NOTIFICATION:

Notification of the parties shall be considered to have been constructively received when it is mailed via the United State Postal Service or delivered in hand to the parties as stated in the contract.

SEVERABILITY:

If any of the GENERAL TERMS AND CONDITIONS is held to be invalid or unenforceable, it will be construed to have the broadest interpretation which would make it valid and enforceable under such holding. Invalidity or the inability to enforce a term or condition will not affect any of the other GENERAL TERMS AND CONDITIONS.

DISADVANTAGED BUSINESS ENTERPRISES:

The Town hereby notifies all Vendors that it will affirmatively insure that in any contract entered into pursuant to this Request for Proposals, disadvantaged business enterprises will be afforded full opportunity to submit proposals in response to this request and will not be discriminated against on the grounds of race, color, national origin, religion, sex, age or disability in consideration for an award.

NON-DISCRIMINATION:

Contracts for work resulting from this Request for Proposals shall obligate the Vendor not to discriminate in employment practices on the grounds of race, color, national origin, religion, sex, age or disability. Statements as to nondiscriminatory practices may be requested from the successful Vendor(s).

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DEFINITIONS:

Proposal shall also mean quotation, bid, offer, qualification/experience statement, and services. Proposers shall also mean vendors, offerors, proposers, contractors or any person or firm responding to a Request for Proposals.

GOVERNING LAW:

The Laws of the State of New Hampshire shall govern all contracts entered into by the Town of Hampstead. Any disputes shall be resolved within the venue of the State of New Hampshire and Hillsborough County.

FAILURE TO ACKNOWLEDGE THIS PROPOSAL MAY RESULT IN WITHDRAWAL FROM THE PROPOSAL LIST FOR THIS COMMODITY OR SERVICE.

FAILURE TO COMPLY WITH THESE REQUIREMENTS COULD RESULT IN THE CANCELLATION OF AN ORDER OR CONTRACT.

INSTRUCTIONS TO BIDDERS

Intent of Specifications

It is the intent of these specifications to cover the furnishing and delivery to the Purchaser of a complete vehicle equipped as hereinafter specified. With a view to obtaining the best results and the most acceptable apparatus, these specifications cover minimum requirements as to the type of construction, finish, and test to which the apparatus must conform, together with certain details as to equipment and appliances to be furnished. Minor details of construction and materials, where not otherwise specified, are left to the discretion of the contractor, who shall be solely responsible for the design and construction. The apparatus shall conform to the requirements of the current NFPA Standard for Tanker Fire Apparatus to the extent specified herein.

BIDDERS ARE ADVISED THAT THIS SECTION OF THE SPECIFICATIONS WILL BE EVALUATED BEFORE THE APPARATUS TECHNICAL SPECIFICATIONS. BIDS THAT DO NOT COMPLY WITH OUR BONDING, INSURANCE, DELIVERY, BIDDER QUALIFICATIONS, SERVICE, AND WARRANTY REQUIREMENTS WILL BE IMMEDIATELY DEEMED NON-RESPONSIVE AND SHALL BE IMMEDIATELY REJECTED WITHOUT FURTHER REVIEW OF THE TECHNICAL SPECIFICATIONS.

Qualification of Bidders

Bids will only be considered on vehicles constructed in the continental United States, whose manufacturers have an established reputation of permanency and reliability in the field of fire apparatus construction. Each manufacturer shall furnish satisfactory evidence of their ability to construct the apparatus as specified, and shall state the location of the factory where the **complete** apparatus will be built.

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Please complete the following (*No Exceptions*)

Please state the location where the following vehicle components will be constructed:

Chassis _____

Body _____

- ◆ How long has the manufacturer been apparatus at this location?

Number of years _____

- ◆ How long has the manufacturer been building bodies at this location?

Number of years _____

Bidders must state the location of at least 25 communities in New England using similar apparatus supplied by them.

The solvency of manufacturers is a prime concern of the Purchaser. Each bid must include a certified financial statement from a nationally recognized accounting firm. Failure to submit such a statement shall result in immediate rejection of a proposal.

Service Requirements

It is the intent of the purchaser to assure that parts and service are readily available for the apparatus specified. SERVICE CAPABILITIES WILL BE A MAJOR CRITERIA FOR AWARD OF THIS BID. To insure proper service, no bid will be accepted unless the bidder owns or offers facilities within 100 miles where complete parts and service are available. The facility must be staffed by full time personnel who are factory trained **and EVT certified** in the operation and repair of the fire apparatus, including the pump, with full authorization of the manufacturer. The facility shall maintain a complete inventory including major pump parts, body components, electrical items, fire apparatus hardware, etc., and shall offer on-site services including pump overhaul, body fabrication, collision repair, and a paint shop complete with a cross flow booth with air makeup and bake options to insure the highest quality paint finish available. The bidder must also operate an on-site pump test facility and must be an "Authorized Parts and Service Center" for Hale or Waterous Pumps, and provide proof thereof. Bids from manufacturers who use third party service people or facilities, or who do not offer a service center, will be immediately rejected. Furthermore, due to a concern over having vehicles "out-of-service" for extended periods of time as a result of having to be sent back to the original manufacturer's location for repairs, any bidder who cannot guarantee that all future repairs will be handled at a local level will not be acceptable.

Service Questionnaire

The bidder shall include the following information with their bid. **NO EXCEPTIONS.**

- ◆ Number of miles from the purchaser to the nearest staffed service facility owned and operated by the bidder

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Number of miles _____

- ◆ The number of service bays and square feet of service space at the bidder's service facility.

Number of bays _____ Square feet _____

- ◆ The length of time the service facility has been in business as an emergency vehicle dealer.

Number of years in business _____

- ◆ How long has the dealer been selling the brand of emergency vehicle being proposed?

Number of year's _____

- ◆ Has the dealer/distributor represented other manufacturers of emergency vehicles in the past?

Yes _____ No _____

If yes, why was the change made? _____

- ◆ Number of emergency vehicles that have been delivered by the dealer/distributor since it has been in business representing its current "brand(s)" of emergency vehicles

Number of vehicles delivered _____

- ◆ Is the dealership strictly dedicated to selling and servicing emergency vehicles and equipment, or do they sell and service other products?

Strictly dedicated to emergency vehicles and equipment? Yes _____ No _____

- ◆ On-site pump test facility?

Yes _____ No _____

- ◆ Number of EVT Certified personnel employed? EVT "Master Mechanics"?

EVT certified personnel _____ EVT "Master Mechanics" _____

- ◆ Number of full-time mechanics employed by the bidder that are solely dedicated to servicing emergency vehicles?

Number solely dedicated to emergency vehicle service _____

- ◆ Full body/collision repair, fabrication, and paint booth on-site?

Yes _____ No _____

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- ◆ Over \$500,000 in parts inventory available at all times?

Yes _____ No _____

- ◆ "Authorized" Hale or Waterous Parts and Service Center?

Yes _____ No _____

- ◆ Does the local service facility accept work on other vehicles (i.e., DPW, oil, concrete, etc...) or fleet trucks in addition to emergency vehicles on a regular basis?

Yes _____ No _____

- ◆ If yes, what percentage of repair work is non emergency vehicle related?

Yes _____ No _____

- ◆ Does the possibility exist that the emergency vehicle may have to go back to the original manufacturer's location for warranty work?

Yes _____ No _____

If yes, please describe some examples _____

- ◆ Does the dealer/distributors service facility perform ALL warranty work for the products they represent?

Yes _____ No _____

If no, please describe where work may be performed _____

Delivery

The apparatus shall be delivered under its own power to assure adequate break-in while under warranty. It shall first be transported to the local service facility, where final inspection and preparation will be performed, including mounting of related equipment. The apparatus will then be delivered to the Purchaser's location.

Post-Delivery Training

On Two (2) mutually agreeable dates after delivery, a certified delivery engineer shall familiarize those persons designated by the Fire Chief with the basic operation of the apparatus and its components. Such training must be coordinated by a fire department officer with a minimum of 20 years of "hands on" experience on the fire ground. This shall be a full

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instructional program including both classroom and practical or "hands on" training. Limited programs or "drop-off" type deliveries are unacceptable.

Construction Time

The completed apparatus shall be delivered 240 calendar days or March 1, 2013, whichever is sooner, after the signing of the contract. In the interest of public safety, and the performance period for the 2011 AGF vehicle award this delivery date is an extremely important consideration.

Insurance Certificate

A Manufacturer's Certificate of product liability and facility insurance equal to or exceeding \$25,000,000.00 must be provided with the bid. The certificate must be in original form (no photocopies or fax copies) and shall name the Town of Hampstead, NH as the certificate holder.

Bid Bond

Each bid shall be accompanied by a bid bond in the amount of ten (10) percent of the bid price. Bids submitted without a bond will not be read. The bid bond must be issued by an Insurance Company registered with the Insurance Commissioner of this State. Bonds must be signed by an Officer of the Bidder's Company. Bonds issued by non-registered or foreign Insurance Companies will be immediately rejected.

Performance Bond

A Performance Bond in the amount of 100% of the contract price must be furnished within thirty (30) days of signing the contract. The Performance Bond must be issued by an Insurance Company registered with the Insurance Commissioner of this State and must be signed by an Officer of the bidder's company. Bonds issued by non-registered or foreign Insurance Companies will be immediately rejected. The cost of the performance bond must be stated to give the purchaser an idea of the financial stability of the bidder.

Penalty Clause

There will be a \$100.00 per day late fee assessed for each calendar day the completed unit is not in the customer's Fire Station, after the determined award date to a manufacturer. It is the customer's requirement to have the unit within 240 calendar days of contract signing or March 1, 2013, whichever is sooner. **NO EXCEPTION**

Contract

These specifications, together with any documents required herein, shall be included in the final contract. Each bidder shall submit a copy of their proposed contract form.

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Warranty

Each bidder shall submit a copy of their standard Warranty in compliance with State and Federal regulations. It shall provide coverage for a minimum of a one (1) year period. The bidder must also submit a lifetime corrosion perforation warranty, a ten (10) year paint warranty, a lifetime frame warranty, a ten (10) year stainless steel plumbing warranty, a lifetime water tank warranty, a ten (10) year cab and body warranty, and twenty year (20) year aerial warranty. Warranty forms must be submitted with the bid package. Altered forms will not be accepted.

Exceptions

Substitutions, deviations, clarifications, or exceptions to the technical specifications must be listed on a separate page marked, "EXCEPTIONS", and must be accompanied by adequate supportive data to allow the Fire Chief to determine acceptability. Proposals that are found to have deviations without listing them will be rejected. Components identified by brand names are available to all prospective bidders and exceptions shall not be allowed on these items.

SUPPORT, DELIVERY, INSPECTIONS AND MANUALS

Approval Drawings

A general arrangement drawing depicting the vehicle's appearance shall be provided. The drawing shall consist of left side, right side, front, and rear elevation views

Vehicles requiring pump controls shall include a general arrangement view of the pump operator's position, scaled the same as the elevation views.

Training

The manufacturer shall provide Two (2) days of training covering vehicle maintenance and operational familiarization.

This training shall be provided by a full time, manufacturer employee trainer who specializes in aerial training.

Electronic Manuals

Two (2) copies of all operator, service, and parts manuals MUST be supplied at the time of delivery in electronic format (CD-ROMs) -. The electronic manuals shall include the following information:

Operating Instructions, descriptions, specifications, and ratings of the cab, chassis, body, installed components, and auxiliary systems

Warnings and cautions pertaining to the operation and maintenance of the fire apparatus and fire fighting systems

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Charts, tables, checklists, and illustrations relating to lubrication, cleaning, troubleshooting, diagnostics, and inspections

Instructions regarding the frequency and procedure for recommended maintenance.

Maintenance instructions for the repair and replacement of installed components

Parts Manual CD-ROM shall contain the following:

- Complete exploded view part drawings for every assemble specific to the truck. All repair components of the assembly shall be illustrated with part number assigned. This is NOT a generic parts manual.
- Mounting hardware listed on all exploded view drawings.
- Service kits and service parts listed where available.
- Recommended spare parts list.
- Reference drawings with easy to locate sub assemble page numbering.
- Warranty descriptions and coverage.

The CD-ROM shall incorporate a navigation page with electronic links to the operators manual, service manual, parts manual, and warranty information, as well as instructions on how to use the manual. Each copy shall include a table of contents with links to the specified documents or illustrations.

The CD must be formatted in such a manner as to allow not only the printing of the entire manual, but to also the cutting, pasting, or copying of individual documents to other electronic media, such as electronic mail, memos, and the like.

A find feature shall be included to allow for searches by text or by part number.

These electronic manuals shall be accessible from any computer operating system capable of supporting portable document format (PDF). Permanent copies of all pertinent data shall be kept file at both the local dealership and at the manufacturer`s location.

NOTE: Engine overhaul, engine parts, transmission overhaul, and transmission parts manuals are not included.

**HAMPSTEAD FIRE DEPARTMENT SPECIFICATIONS FOR ONE (1) 3000 GALLON
FIRE TANKER**

5/26/12

INTRODUCTION

PROPOSAL REQUIREMENTS

GENERAL INFORMATION

It is the intent of these specifications to secure apparatus constructed to withstand the severe and continuous use encountered during emergency fire fighting 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.

These specifications detail the requirements for general design criteria of cab and chassis components, fire pump and related components, water tank, fire body, electrical components, painting, and equipment. In evaluating the bid proposals to determine which proposal is the most advantageous, these major items shall be considered.

Apparatus and equipment must meet the specific requirements and intent of the requirements as specified herein. All items of these 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 No. 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 following detailed specifications. Each bidder shall provide only that equipment as required in the following specifications.

The fire apparatus and equipment to be furnished in meeting these 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.

BID COMPLIANCE INSTRUCTIONS

Each bidder must indicate his compliance with these specifications by marking "YES" or "NO" in the appropriate column for each individual paragraph of this specification. Indicating "YES" to a paragraph shall mean full compliance; indicating "NO" 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

Specification for: HAMPSTEAD FIRE DEPARTMENT

to the page and paragraph where the exception is being taken. Failure to comply with this requirement shall result in the bid proposal being rejected.

The Hampstead Fire Department shall be the sole arbiter as to what exceptions may be allowed or disallowed. In the event a bidder fails to make any indication of compliance for any or all provisions it shall be assumed that the bidder is taking total exception to the specification and the bid shall be disallowed.

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
- 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, rated 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
- Pump make, model, rated capacity in gallons per minute and serial number
- Pump transmission make, model, serial number and gear ratio
- Water tank certified capacity in gallons
- 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.

The pump manufacturer's certification of suction capability.

A copy of the apparatus manufacturer's approval for stationary pumping applications.

The engine manufacturers certified brake horsepower curve for the engine furnished, showing the maximum governed speed.

The pump manufacturer's certification of hydrostatic test.

Underwriters Laboratory certification of inspection and test for the fire pump.

Specification for: HAMPSTEAD FIRE DEPARTMENT

Weight documents from certified scale - showing actual loading on the front axle, rear axles 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 NFPA-1901.

Written load analysis and results of electrical performance tests.

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.

VEHICLE RECORDS

The successful bidder shall be responsible for preparing and maintaining a record file of parts and assemblies used to manufacture the apparatus. These records shall be maintained in the factory of the bidder for a minimum of twenty (20) years. File shall 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 Hampstead Fire Department shall have access to any and all documents contained in this file upon official written request.

BIDDER INSTRUCTIONS

Bids shall be addressed and submitted in accordance with the advertised "Bid Notice". The words "Fire Tanker", the date, and the bid opening time must be stated on the face of the bid envelope. It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, telegram, facsimile or telephones bids shall not be considered.

Each bid shall be accompanied by a detailed description of the apparatus and equipment it proposes to furnish. It is the intent of these specifications to cover the furnishing and delivery of a complete and soundly engineered apparatus equipped as specified. Minor details of construction and materials, where not otherwise specified, are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

Brand names or model numbers have been specified for some items. 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. It is the bidder's responsibility to prove to the Hampstead Fire Department that an item bid as "equal to" a particular specified item, is truly of equal quality, design, and function. The Hampstead Fire Department maintains the right to make a final decision as to the acceptability of an item bid as "equal to" a particular specified item.

Specification for: HAMPSTEAD FIRE DEPARTMENT

No exception shall be allowed for any of the aforementioned instructions. Bids not submitted in accordance with these instructions shall be rejected.

The competency and responsibility of bidders shall be considered in making the award. The Hampstead Fire Department reserves the right to reject any or all bids, to waive any informality or to reject the bid of a bidder who, in the judgment of the Hampstead Fire Department is not in a position to perform the contract. These specifications, together with any documents required herein, shall be included in the final contract. Each bidder shall submit a copy of his proposed contract form. The Hampstead Fire Department reserves the right to reject a bid based on unacceptable provisions of a bidder's contract and does not obligate itself to accept the lowest bid. The Hampstead Fire Department shall not accept any bids which do not meet these specifications and is the sole arbiter as to which bid is deemed to be in the best interest of the Town of Hampstead.

TIMELY PROPOSALS

It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, facsimiles, telegrams, or telephone bids shall not be considered.

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 fire fighting 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 and readily accessible for lubrication, inspection, adjustment and repair. Bidder's specifications must meet minimum requirements of N.F.P.A. Pamphlet #1901; 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, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters shall be carried without overloading or injuring the apparatus.

PRODUCT LIABILITY INSURANCE

Each bidder shall supply proof of product liability and facility insurance equal to or exceeding \$30,000,000.00. This shall be provided as part of the proposal.

Garage insurance is not acceptable.

SPECIAL CONDITIONS

No bid shall be considered unless the bidder can meet the special conditions stated herein.

Specification for: HAMPSTEAD FIRE DEPARTMENT

The complete apparatus must be manufactured in the United States of America.

PRICES AND PAYMENTS

The bid price shall be F.O.B. Destination, on a delivered and accepted basis at the Hampstead Fire Department.

Total price on bidder's proposal sheet must include all items listed in these specifications. Listing any items contained in the specification as an extra cost item, unless specifically requested to do so in these specifications, shall automatically be cause for rejection.

Bidder shall compute pricing less federal and state taxes.

BID EVALUATION

Hampstead Fire Department, Fire Chief and other Town officials shall evaluate bids received. This evaluation shall be based as a minimum on the following criteria:

- Commitment for expedient delivery.
- Quality of product
- Commitment to the general conditions contained herein, including warranty.
- Completeness of the proposal, i.e. the degree that it responds completely and accurately to all requirements and requests for information contained herein.
- Manufacturing and delivery schedule.
- Price
- Contractor's demonstrated capabilities and qualifications.
- Equipment suppliers and/or local representative's demonstrated capabilities and qualifications.

EXCEPTIONS TO SPECIFICATIONS

Exceptions shall be referenced to the paragraph and page of these specifications where the item appears. 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 specifications shall not be accepted.

"OR APPROVED EQUAL" CLAUSE

The mention in the specifications of apparatus, 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 shall be subject to a competitive demonstration and

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evaluation by the using department. Such demonstration to be provided on request within ten working days after the receipt of bids.

The result of that demonstration and evaluation shall be of prime importance in the recommendation to the governing body for the final contract award.

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 other documentation as requested to show that the equipment offered fully complies with these specifications.

PROPRIETARY PARTS

It is the intention of the Hampstead Fire Department for all bidders to furnish the apparatus with major parts commonly used by the heavy-duty truck manufacturers and open market vendors where as 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, electronic controls, seats, pumps, gauges, foam systems, etc., may not be acceptable by the Hampstead Fire Department.

DELIVERY TIME

Each bidder shall state the completed apparatus delivery time based on the number of calendar days, starting from the date the sales contract is signed and accepted by the apparatus manufacturer.

Delivery Time: 240 Calendar days or by March 1, 2013, whichever is sooner. ***SEE PENALTY CLAUSE***

BOND REQUIREMENTS

Any bonds or sureties (bid, performance, or other) required by the Purchasing Organization shall be as specified below or as requested in the advertised "Bid Notice".

A bid bond shall be submitted with the bidder's proposal. The bond shall be for an amount equal to 10% of the proposed bid price. Failure to provide an original, acceptable, valid bid bond with the proposal shall result in the immediate rejection of the bidder's proposal.

The apparatus manufacturer must provide all bonds; bonds provided by a sales representative, dealer, distributor, or agent of the apparatus manufacturer will not be acceptable.

With respect to the qualifications of proposed bonds or sureties, the bidder's bonding company must meet the following requirements:

Specification for: HAMPSTEAD FIRE DEPARTMENT

- An acceptable surety as outlined by the department of treasury on their most recent federal register at a limit of at least \$10,000,000;
- A.M. Best rating of "A" or better with a financial rating of at least "VIII"; and licensed as a surety in the State of New Hampshire.

PERFORMANCE BOND

A performance bond shall be supplied by the successful bidder upon acceptance of the signed sales contract for the apparatus. The performance bond shall be for an amount equal to the full contract price (i.e. 100% bond).

FAIR, ETHICAL AND LEGAL COMPETITION

In order to ensure fair, ethical, and legal competition, neither original equipment manufacturer (O.E.M.) nor parent company of the O.E.M. shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

NON-COLLUSIVE BIDDING CERTIFICATION

By submission of this bid, each bidder and each person signing on behalf of any bidder, certifies, and in 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 non-collusive bidding have been complied with.

MATERIAL AND WORKMANSHIP

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

All workmanship shall be of high quality and accomplished in a professional manner so as to insure a functional apparatus with a pleasing, aesthetic appearance.

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CONTRACT AWARD

The Hampstead Fire Department reserves the right to reject any or all bids deemed to be unresponsive. The Hampstead Fire Department also reserves the right to waive any informalities, irregularities and technicalities in procedure.

The Hampstead Fire Department reserves the right, before awarding the contract, to require a bidder to submit 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 (experience) with the Hampstead Fire Department.

Upon award of contract, the sales contract shall be between the Hampstead Fire Department and the manufacturer of the apparatus. Contracts between the Hampstead Fire Department and a sales representative, dealer, distributor, or agent of the apparatus manufacturer shall not be acceptable. (No Exceptions.)

SALES ENGINEER

The successful bidder shall designate an individual to perform the contractor's sales engineer functions. The sales engineer shall provide a single point interface between the Hampstead Fire Department and the contractor on all matters concerning the contract.

APPROVAL DRAWING

A detailed drawing of the apparatus shall be provided to the Hampstead Fire Department for approval before construction begins. A copy of this drawing shall also be provided to the manufacturer's representative. Upon Hampstead Fire Department's approval, the finalized drawing shall become a part of the total contract.

The drawing shall 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 suction, discharges, etc. The drawing shall be a visual interpretation of the apparatus as it is to be supplied.

INSPECTION VISITS

The successful bidder shall allow one (1) factory inspection trip to the apparatus manufacturer's facility. Transportation, meals, lodging, and other requisite expenses shall be the department's responsibility.

The Hampstead Fire Department maintains the right to inspect the apparatus, within normal business hours, at any other point during construction. Expenses incurred during non-specified inspection visits shall be the responsibility of the Hampstead Fire Department.

During inspection visits, the Hampstead Fire Department reserves the right to conduct actual performance tests to evaluate completed portions of the unit. Testing shall be accomplished with the assistance and resources of the contractor.

DELIVERY, DELIVERY ENGINEER, AND TESTING

Delivery of the apparatus to the Hampstead Fire Department shall remain the bidder's responsibility.

On initial delivery of the fire apparatus, a qualified and responsible representative of the contractor shall demonstrate the apparatus and provide initial instruction to representatives of the Hampstead Fire Department regarding the operation, care, and maintenance of the apparatus and equipment supplied.

DELIVERY DEMONSTRATION

Upon delivery the manufacturer shall provide an experienced delivery engineer to demonstrate every device and feature built into the apparatus. A full day of demonstration shall be provided for each shift of firefighters as well as a final day of familiarization for the Hampstead Fire Department maintenance staff. The demonstration must include, as a minimum, an "AS BUILT" PowerPoint presentation of the specific unit **as delivered to the Hampstead Fire Department**. The PowerPoint program must cover each and every component and feature on the unit. A copy of the program must be provided to the Hampstead Fire Department for future use.

Bidders shall include in their proposal the specific name of the individual designated to conduct the demonstration program along with a brief summary of the individuals qualifications. The individual must have conducted a minimum of 500 similar deliveries. Qualifications that do not meet the Hampstead Fire Departments standards may be cause for rejection of the bid.

Timing of the delivery demonstrations shall include both week days and weekends as may suit the needs of the Hampstead Fire Department.

INSTRUCTION MANUALS/DRAWINGS, SCHEMATIC

In accordance with standard commercial practices, applicable to each vehicle (including body and special equipment) furnished under the contract, the following listed manuals and schematics, in the quantity specified, shall be provided at time of delivery of each vehicle.

The contractor shall supply at time of delivery, two (2) CD copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.

The manual shall contain the following:

- Descriptions, specifications, and ratings of chassis, pump (if applicable), and aerial device.
- Wiring diagrams.
- Lubrication charts.
- Operating instructions for the chassis, any major components such as a pump and any auxiliary systems.
- Instructions regarding the frequency and procedures recommended for maintenance.
- Parts replacement information.

INSTRUCTION MANUALS/DRAWINGS, SCHEMATIC

In accordance with standard commercial practices, applicable to each vehicle (including body and special equipment) furnished under the contract, the following listed manuals and schematics, in the quantity specified, shall be provided at time of delivery of each vehicle.

The contractor shall supply at time of delivery, two (2) sets, paper copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.

The manual shall contain the following:

- Descriptions, specifications, and ratings of chassis and pump.
- Wiring diagrams.
- Lubrication charts.
- Operating instructions for the chassis, any major components such as a pump and any auxiliary systems.
- Instructions regarding the frequency and procedures recommended for maintenance.
- Parts replacement information.

VEHICLE FLUIDS PLATE

As required by NFPA-1901, the contractor shall 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 shall specify the quantity and type of the following fluids used in the vehicle:

- Engine oil
- Engine coolant
- Chassis transmission fluid
- Pump transmission lubrication fluid
- Drive axle(s) lubrication fluid
- Air-conditioning refrigerant
- Air-conditioning lubrication oil
- Power steering fluid
- Cab tilt mechanism
- Equipment rack fluid
- Air compressor system lubricant

PRINCIPAL APPARATUS DIMENSIONS & G.V.W.R.

The bidder shall include the principal dimensions, front G.A.W.R., rear G.A.W.R., and total G.V.W.R. of the proposed apparatus. Additionally, the bidder shall provide a weight distribution of the fully loaded, completed vehicle; this shall include a filled water tank, specified hose load, miscellaneous equipment allowance in accordance with NFPA-1901 requirements, and an equivalent personnel load of 250 lbs. per seating position.

BIDDER TO SUPPLY AND FILL- IN PROPOSED DIMENSIONS:

- OVERALL LENGTH: _____"
- OVERALL WIDTH: _____"
- OVERALL HEIGHT: _____"
- WHEELBASE: _____"

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

- MINIMUM FRONT G.A.W.R.: 20,000 lbs.
- MINIMUM REAR G.A.W.R.: 46,000 lbs.
- MINIMUM TOTAL G.V.W.R.: 66,000 lbs.

BIDDERS BACKGROUND

All bidders shall state the ownership of the organization which shall actually construct the apparatus. Companies which are a division, subsidiary, wholly or partially owned subsidiary or other entity which is wholly or partially owned or controlled by another entity shall state their entire ownership lineage. Bidders from such organizations must have the bid signed by the chief executive of the parent entity.

PRIMARY PLANT CONSTRUCTION

In order to insure top quality construction, maximum assembly line and engineering communication and the highest level of manufacturing supervision the entire apparatus shall be built at the bidders' primary (headquarters) manufacturing facility. Apparatus constructed at satellite plants shall not be considered.

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!

BODY CONSTRUCTION LIMITATIONS

Apparatus bodies which are either bolted together or make excessive use of adhesives shall not be considered. Similarly, body construction techniques which rely upon space consuming extrusions for structural support shall not be permitted.

FAMA COMPLIANCE

The apparatus manufacturer and its local dealership must be current members of the Fire Apparatus Manufacturer's Association (FAMA).

U.S.A. MANUFACTURER

The entire apparatus shall be assembled within the borders of the Continental United States to insure more readily available parts (without added costs and delays caused by tariffs and customs) and service.

QUALITY MANAGEMENT

The manufacturer shall operate a Quality Management System in compliance with ISO 9001 and/or MIL-I-45208A. 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.

TABLE OF CONTENTS

As all manufacturers present their specifications in a different order, each manufacturer shall provide a table of contents for ease of bid comparison and to clearly locate all proposed items.

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. This material shall be a minimum 3/16 (0.1875") in thickness. Upon request by the Hampstead Fire Department, the manufacturer shall supply proof of compliance with this requirement. All vertical surfaces on the body, which incorporate aluminum tread plate material, shall utilize the same material pattern to provide a consistent overall appearance.

AMP DRAW REPORT

The bidder shall provide with their bid proposal and at the time of delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.

A written load analysis, which shall include the following:

Specification for: HAMPSTEAD FIRE DEPARTMENT

- The rating of the alternator.
- The minimum continuous load of each component that is specified per: Applicable NFPA-1901.
- Additional loads that, when added to the minimum continuous load, determine the total connected load.
- Each individual intermittent load.

All of the above listed items shall be provided by the bidder per the applicable NFPA-1901.

COOPERATIVE PURCHASING

The Manufacturer shall be pleased to allow other public agencies to use the purchase agreement resulting from this invitation to bid unless the bidder expressly notes on the proposal form that prices are not available for tag-on. The condition of such use by other agencies shall be that any such agency must make and pursue contact, purchase order/contract, and all contractual remedies with the successful bidder. Such tag-ons shall be done so that the Town of Hampstead has no responsibility for performance by either the manufacturer or the agency using the contract.

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 shall 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).

Specification for: HAMPSTEAD FIRE DEPARTMENT

- A label displaying the height, length, and GVWR of the vehicle shall be visible to driver.
- This label shall indicate that the Hampstead Fire Department shall 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
- Drive Axle(s) Lubrication Fluid
- Air Conditioning Refrigerant
- Air Conditioning Lubrication Oil
- Power Steering Fluid
- Cab Tilt Mechanism Fluid
- Equipment Rack Fluid
- Air Compressor System Lubricant
- Front Tire Cold Pressure
- Rear Tire Cold Pressure
- 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

ROLLOVER STABILITY

The apparatus shall meet the criteria defined in 4.13.1 for rollover stability as defined in the 2009 NFPA Standard for Automotive Fire Apparatus.

Specification for: HAMPSTEAD FIRE DEPARTMENT

REGIONAL SERVICE CENTER

The apparatus manufacturer shall maintain a comprehensive service center within 50 miles of the Hampstead Fire Department. This center shall be totally dedicated to the service of fire apparatus and fire apparatus only. It shall be fully authorized by the manufacturer to conduct all levels of repair and service. The capabilities of the service center shall be at a minimum:

Authorized pump service for both Hale and Waterous

Full hydraulic service

Full 12 volt electrical service to include multiplexed systems

Full 120/240 volt service

Full chassis and running gear service

Complete body shop and paint facility which shall include:

Heated and humidity controlled 50 foot environmentally certified down draft paint booth

Full time body shop and paint staff

Electronic paint color mixing and matching system

Secured paint storage area

Apparatus service lift system

Metal fabrication center which shall include at a minimum:

10 x 10 shear

Press Brake

Apron Brake

Modern MIG and TIG welding equipment

Plasma cutter

Machining center

The service facility shall have sufficient indoor heated space to permit the storage of the Hampstead Fire Department's apparatus inside whenever in the center's possession. No outside storage shall be permitted. The center must provide a full time staff of experienced EVT

Specification for: HAMPSTEAD FIRE DEPARTMENT

technicians with all of the required equipment to provide modern, accurate and efficient service. Bidders shall state the size of their shop and officer area in square feet. They shall state the location of the facility and provide photos of both the exterior and interior of the center. Accuracy of the description of the service center is of great importance.

NAVISTAR 7600 SBA 6x4 TWO DOOR CHASSIS

Model Profile

2013 7600 SBA 6X4 2010 (SF667)

APPLICATION: Tank (Emergency)

MISSION: Requested GVWR: 56000. Calc. GVWR: 66000

Calc. Start / Grade Ability: 31.90% / 3.05% @ 55 MPH

Calc. Geared Speed: 56.2 MPH

DIMENSION: Wheelbase: 238.00, CA: 170.90, Axle to Frame: 100.00

ENGINE, DIESEL: {MaxxFace 13} EPA 10, 475 HP @ 1700 RPM, 1700 lb-ft Torque @ 1000 RPM, 2100 RPM

Governed Speed, 475 Peak HP (Max)

TRANSMISSION, AUTOMATIC: {Allison 4000EVS_P} 4th Generation Controls, Close Ratio, 5-Speed; With Overdrive, Includes

Oil Level Sensor, With Provision for PTO, Less Retarder

CLUTCH: Omit Item (Clutch & Control)

AXLE, FRONT NON-DRIVING: {Meritor MFS-20-133A} Wide Track, I-Beam Type, 20,000-lb Capacity

AXLE, REAR, TANDEM: {Meritor RT-46-160} Single Reduction 46,000-lb Capacity 200 Wheel Ends Gear Ratio: 6.14

CAB: Conventional

TIRE, FRONT: (2) 315/80R22.5 (MICHELIN) 481 rev/mile, load range L, 20 ply

TIRE, REAR: (8) 11R22.5 (MICHELIN) 493 rev/mile, load range H, 16 ply

SUSPENSION, REAR, TANDEM: {Hendrickson RT-463} Walking Beam Type 54" Axle Spacing; 46,000-lb Capacity With Bronze Center Bushings

Specification for: HAMPSTEAD FIRE DEPARTMENT

FRAME REINFORCEMENT: Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312";

(274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL

PAINT: Cab schematic 100GS

Location 1: 9218, Cameo White (Prem)

Chassis schematic N/A

SF66700 Base Chassis, Model 7600 SBA 6X4 2010 with 238.00 Wheelbase, 170.90 CA, and 100.00 Axle to Frame.

1570 TOW HOOK, FRONT (2) Frame Mounted

1CBU FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm

x 8.0mm); 480.0" (12192) Maximum OAL

1GBP FRAME REINFORCEMENT Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892"

x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL

1LLA BUMPER, FRONT Steel, Swept Back

Includes: BUMPER, FRONT Powder Coated Gray (Argent) Color

1WHP WHEELBASE RANGE 183" (465cm) Through and Including 248" (630cm)

2ARY AXLE, FRONT NON-DRIVING {Meritor MFS-20-133A} Wide Track, I-Beam Type, 20,000-lb Capacity

Notes: The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension;

Brake System; Brakes, Front Air Cam; Wheels; Tires.

3AGA SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 20,000-lb Capacity; With Shock Absorbers

Includes: SPRING PINS Rubber Bushings, Maintenance-Free

Notes: The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension;

Specification for: HAMPSTEAD FIRE DEPARTMENT

Brake System; Brakes, Front Air Cam; Wheels; Tires.

4091 BRAKE SYSTEM, AIR Dual System for Straight Truck Applications

Includes: BRAKE LINES Color and Size Coded Nylon

: DRAIN VALVE Twist-Type

: DUST SHIELDS, FRONT BRAKE

: DUST SHIELDS, REAR BRAKE

: GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster

: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel

: PARKING BRAKE VALVE For Truck

: QUICK RELEASE VALVE Bendix On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4

: SLACK ADJUSTERS, FRONT Automatic

: SLACK ADJUSTERS, REAR Automatic

: SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4

Notes: Rear Axle is Limited to 46,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam

Brakes Regardless of Axle /Suspension Ordered.

4193 BRAKES, FRONT, AIR CAM 16.5" x 6", Includes 24 SqIn Long Stroke Brake Chambers

Notes: The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension;

Brake System; Brakes, Front Air Cam; Wheels; Tires.

4732 DRAIN VALVE {Berg} Manual; With Pull Chain, for Air Tank

4AZA AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)

4EBD AIR DRYER {Meritor Wabco System Saver 1200} with Heater

Includes: AIR DRYER LOCATION Inside Left Rail, Back of Cab

Specification for: HAMPSTEAD FIRE DEPARTMENT

4ETE BRAKE CHAMBERS, FRONT AXLE {Haldex} 24 SqIn

4EVL BRAKE CHAMBERS, REAR AXLE {Haldex GC3030LHDHO} 30/30 Spring Brake

Includes

: BRAKE CHAMBERS, SPRING (2) Rear Parking; WITH TRUCK BRAKES: All 4x2, 4x4; WITH TRACTOR

BRAKES: All 4x2, 4x4; 6x4 & 6x6 with Rear Tandem Axles Less Than 46,000-lb. or GVWR Less Than 54,000-lb.

: BRAKE CHAMBERS, SPRING (4) Rear Parking; WITH TRUCK BRAKES: All 6x4, 6x6; WITH TRACTOR

BRAKES: 6x4 & 6x6 with Rear Tandem Axles 46,000-lb. or Greater or GVWR of 54,000-lb. or Greater

4LAA SLACK ADJUSTERS, FRONT {Haldex} Automatic

4LGA SLACK ADJUSTERS, REAR {Haldex} Automatic

4NDB BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring

Actuated Parking Brake

Notes

: The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension;

Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

4SPM AIR COMPRESSOR {Bendix} 15.9 CFM Capacity, Single Cylinder

5AAA STEERING COLUMN Stationary

5CAL STEERING WHEEL 2-Spoke, 18" Diam., Black

5PTB STEERING GEAR (2) {Sheppard M-100/M-80} Dual Power

7BDA EXHAUST SYSTEM Single, Horizontal, After treatment Device Frame Mounted Right Side Back of Cab,

Includes Horizontal Tail Pipe

Specification for: HAMPSTEAD FIRE DEPARTMENT

Includes

: NOTE: The Horizontal Tailpipe Includes a Temperature Control Device

7SDA ENGINE COMPRESSION BRAKE {MaxxFace} by Jacobs; for MaxxFace 11 & 13 Engines, With Selector

Switch and On/Off Switch

7WZY SWITCH, FOR EXHAUST 2 Position, Lighted & Latching, ON/OFF Type, Mounted in IP, Inhibits Diesel

Particulate Filter Regeneration as Long as Switch is in ON Position

8000 ELECTRICAL SYSTEM 12-Volt, Standard Equipment

Includes

: BATTERY BOX Steel with Plastic Lid

: DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab

: FUSES, ELECTRICAL SAE Blade-Type

: HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover

: HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever

: HEADLIGHTS (2) Sealed Beam, Round, with Chrome Plated Bezels

: HORN, ELECTRIC Single

: JUMP START STUD Located on Positive Terminal of Outermost Battery

: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light

: RUNNING LIGHT (2) Daytime, Included With Headlights

: STARTER SWITCH Electric, Key Operated

: STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector

: TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature

: TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted

Specification for: HAMPSTEAD FIRE DEPARTMENT

: WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever

: WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted

: WIRING, CHASSIS Color Coded and Continuously Numbered

8GWZ ALTERNATOR {Leece-Neville 14923PAH} Brush Type; 12 Volt 220 Amp. Capacity, Pad Mount, Includes 1-Gauge Protected Charging Circuit

8HAB BODY BUILDER WIRING Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame;

Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn

8MKL BATTERY SYSTEM {International} Maintenance-Free, (3) 12-Volt 1950CCA Total

8WCL HORN, AIR Black, Single Trumpet, Air Solenoid Operated

8WGA SOLENOID, AIR for Hampstead Fire Department Use; Provides (1) Normally Closed Pilot Air Source, Approx. 4 CFM, Includes

Latched Switch in Cab; Air Available Only With Key in "Ignition" or "Accessory" Position; Air Shall Exhaust with Key in "Off" Position

Notes: To Be Used as a Pilot Air and NOT as an Air Supply.

8WJV BATTERY DISCONNECT SWITCH {Joseph Pollak} for Cab Power Disconnect Switch; Lever Operated, Disconnects Power to PDC, Does Not Disconnect Charging Circuits, Cab Mounted

8WTJ SWITCH, BODY CIRCUITS, REAR for Bodybuilder; With 6 Switches in Instrument Panel (2-position switches);

One Power Module, With 6 Channels, 20 Amp per Channel and 80 Amp Max Output, Switches Control the Power Modules Through Multiplex Wiring, Mounted at Rear of Frame

8WXG STARTING MOTOR {Mitsubishi Electric Automotive America 105P} 12-Volt, with Soft-Start

Notes: This starter is designed to work reliably without the need for thermal overcrank protection and provides the same warranty coverage as starters with thermal overcrank protection.

Specification for: HAMPSTEAD FIRE DEPARTMENT

8WZP INDICATOR, BATTERY WARNING Green BATTERY ON Indicator, Mounted on Left Side of Instrument Panel, To be Used with Factory Installed or Hampstead Fire Department Mounted Battery Disconnect Switch

8XAH CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses

9585 FENDER EXTENSIONS Rubber

9HAN INSULATION, UNDER HOOD for Sound Abatement

9HBM GRILLE Stationary, Chrome

9HBN INSULATION, SPLASH PANELS for Sound Abatement

9WBB GRILLE EMBER SCREEN Mounted to Grille to Keep Hot Embers out of Engine Air Intake System

9WBK FRONT END Tilting, Fiberglass, With Three Piece Construction Includes Long Hood

10060 PAINT SCHEMATIC, PT-1 Single Color, Design 100

Includes: PAINT SCHEMATIC ID LETTERS "GS"

10761 PAINT TYPE Base Coat/Clear Coat, 1-2 Tone

10769 PAINT CLASS Premium Color

10943 KEYS - ALL ALIKE Fleet - Includes Ignition and Cab Door Keys

10UAB VEHICLE REGISTRATION IDENTITY ID for US States EXCLUDING: California, Connecticut, Delaware, Georgia, Maine, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania

10WBE KEYS - ALL ALIKE, ID Z-001

11001 CLUTCH Omit Item (Clutch & Control)

12BAW ENGINE, DIESEL {MaxxForce 13} EPA 10, 475 HP @ 1700 RPM, 1700 lb-ft Torque @ 1000 RPM, 2100 RPM Governed Speed, 475 Peak HP (Max)

Includes: AIR COMPRESSOR AIR SUPPLY LINE Naturally-Aspirated (Air Brake Chassis Only)

: ANTI-FREEZE Yellow Shell Rotella Extended Life Coolant; -40 Degrees F/ -40 Degrees C; for MaxxForce 2010 Engines

Specification for: HAMPSTEAD FIRE DEPARTMENT

: COLD STARTING EQUIPMENT Automatic; With Engine ECM Control

: CRUISE CONTROL Electronic; Controls Integral to Steering Wheel

: ENGINE BLOCK Compacted Graphite Iron

: ENGINE SHUTDOWN Electric, Key Operated

: FUEL FILTER Top Access, Cartridge Type Filter Element; Engine Mounted

: FUEL SYSTEM High Pressure Common Rail

: GOVERNOR Electronic

: HEAT MANAGEMENT SYSTEM Eco-Therm

: OIL FILTER, ENGINE Drop-In Cartridge Type

: OIL PAN Laminate Steel Composite

: TURBO Twin Series

: WET TYPE CYLINDER SLEEVES

12THJ FAN DRIVE {Horton Drivemaster} Automatic On/Off Type, With Normally Closed Temperature Control

Includes: FAN Nylon

12UBL RADIATOR Aluminum; Welded, Front to Back CrossFlow System, 1593 SqIn, 1929 SqIn Dual CAC, 1548 SqIn

3 Core LTR

Includes: DEAERATION SYSTEM with Clear Fill/Surge Tank

: HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps

: RADIATOR HOSES Premium, Rubber

12UXH FEDERAL EMISSIONS for 2010; MaxxForce 13 Engines

12VBC AIR CLEANER Single Element

Includes: AIR CLEANER with Vacuator

Specification for: HAMPSTEAD FIRE DEPARTMENT

: GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted

12WEG COLD STARTING EQUIPMENT Automatic; With Engine ECM Control

12WTA FAN DRIVE SPECIAL EFFECTS Fan Cooling Ring with Fan Shroud Effects, Engine Mounted

12WZD EMISSION COMPLIANCE Engine Shutdown System Exempt Vehicles, Complies With California Clean Air Regulations

13AKR TRANSMISSION, AUTOMATIC {Allison 4000EVS_P} 4th Generation Controls, Close Ratio, 5-Speed; With Overdrive, Includes Oil Level Sensor, With Provision for PTO, Less Retarder

Includes: OIL FILTER, TRANSMISSION Mounted on Transmission

: TRANSMISSION OIL PAN Magnet in Oil Pan

13WAW OIL COOLER, AUTO TRANSMISSION {Modine} Water to Oil, for Allison or CEEMAT Transmission

13WBL TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission

13WLM TRANSMISSION OIL Synthetic; 63 thru 76 Pints

13WUE ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS); Fire/Pumper, Tank, Aerial/Ladder

13WYL SHIFT CONTROL PARAMETERS Allison Performance Programming in Primary and Allison Economy

Programming in Secondary

14GRD AXLE, REAR, TANDEM {Meritor RT-46-160} Single Reduction 46,000-lb Capacity 200 Wheel Ends. Gear Ratio: 6.14

Includes: POWER DIVIDER LOCK Electric over Air Operated, Cab Control with Indicator Light

: REAR AXLE DRAIN PLUG (2) Magnetic, For Tandem Rear Axle

Notes: When Specifying Axle Ratio, Check Performance Guidelines and TCAPE for Startability and Performance

14UHK SUSPENSION, REAR, TANDEM {Hendrickson RT-463} Walking Beam Type 54" Axle Spacing; 46,000-lb Capacity With Bronze Center Bushings

Specification for: HAMPSTEAD FIRE DEPARTMENT

Includes: CROSSMEMBER, SUSPENSION Stamped Steel Double Dogbone

Notes: The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension;

Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

14WAL SUSPENSION/REAR-AXLE IDENTITY for Meritor Tandem Rear Axles With Bar-Pin Beam Attachment Type Suspensions

15LKU FUEL/WATER SEPARATOR {Racor} Fuel Pre-Filter and Filter Base, 10 Micron

15SGJ FUEL TANK Top Draw; D Style, Non Polished Aluminum, 50 U.S. Gal., 189 L Capacity, 16" Tank Depth, With Quick Connect Outlet, Mounted Left Side, Under Cab

15WCS FUEL COOLER Less Thermostat; Mounted in Front of Cooling Module

16030 CAB Conventional

Includes: ARM REST (2) Molded Plastic; One Each Door

: CLEARANCE/MARKER LIGHTS (5) Flush Mounted

: COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window

: CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel

: DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Console, Center Mounted

: GLASS, ALL WINDOWS Tinted

: GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side

: GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side

: INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color

: STEP (4) Two Steps Per Door

16GHU GRAB HANDLE, CAB INTERIOR (2) Safety Yellow

16HBA GAUGE CLUSTER English With English Electronic Speedometer

Includes: GAUGE CLUSTER (6) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter, Washer Fluid Level

Specification for: HAMPSTEAD FIRE DEPARTMENT

: ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout

: WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage

(Visual and Audible)

16HCK SEATBELT WARNING PREWIRE Includes Seat Belt Switches and Seat Sensors for all Belted Positions in the Cab and a Harness Routed to the Center of the Dash for the Aftermarket Installation of the Data Recorder and Seatbelt Indicator Systems, for 1 to 3 Seat Belts

16HGH GAUGE, OIL TEMP, ALLISON TRAN

16HHE GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} With Black Bezel Mounted in Instrument Panel

16HKT IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster

16JJE SEAT, DRIVER {National 2000} NFPA Compliant, Air Suspension, High Back With Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, -3 to +14 Degree Back Angle Adjust

Includes: SEAT BELT 3-Point, Lap and Shoulder Belt Type

16PJH SEAT, PASSENGER {Gra-Mag} Non Suspension, High Back, Fixed Back, Integral Headrest, Vinyl

Includes: SEAT BELT 3-Point, Lap and Shoulder Belt Type

16SDC GRAB HANDLE (2) Chrome Towel Bar Type With Anti-Slip Rubber Inserts; for Cab Entry, Mounted Left and Right, Each Side at "B" Pillar

16SDT MIRRORS (2) {Lang Mekra} Styled; Rectangular, 7.09" x 15.75" & Integral Convex Both Sides, 102" Inside

Spacing, Breakaway Type, Heated Heads Thermostat Controlled, Power Both Sides Flat Glass Only, Clearance Lights LED,

16VBZ SEAT BELT All Red; 1 to 3

16WCS HEATER {Blend-Air} with Defroster

Includes: HEATER HOSES Premium

: HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps

Specification for: HAMPSTEAD FIRE DEPARTMENT

16WJS INSTRUMENT PANEL Center Section, Flat Panel

16WKY HVAC FRESH AIR FILTER

16WRX CAB INTERIOR TRIM Deluxe

Includes: "A" PILLAR COVER Molded Plastic

: CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering

: CAB, INTERIOR TRIM, CLOSEOUT Lower Dash Closeout Panel; Molded Plastic; Under Instrument Panel Driver Side

: CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket

: DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors

: FLOOR COVERING Rubber, Black

: HEADLINER Soft Padded Cloth

: INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section

: STORAGE POCKET, DOOR (1) Molded Plastic, Full-Length; Driver Door

: SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console

16WSK CAB REAR SUSPENSION Air Bag Type

27DMW WHEELS, FRONT DISC; 22.5" Painted Steel, 5 Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 9.00 DC Rims; With Steel Hubs.

Includes: PAINT IDENTITY, FRONT WHEELS White

Notes: Compatible Tire Sizes: 12R22.5, 295/75R22.5, 295/80R22.5, 315/80R22.5

28DMA WHEELS, REAR DUAL DISC; 22.5" Painted Steel, 2 Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With Steel Hubs

Includes: PAINT IDENTITY, REAR WHEELS White

Notes: Compatible Tire Sizes: 11R22.5, 12R22.5, 255/70R22.5, 255/80R22.5, 265/75R22.5, 275/70R22.5, 275/80R22.5, 295/75R22.5, 295/80R22.5

Specification for: HAMPSTEAD FIRE DEPARTMENT

60AAA BDY INTG, REMOTE POWER MODULE Mounted Under Cab or On Battery Box;
Up to 6 Outputs & 6 Inputs,

Max. 20 amp. per Channel, Max. 80 amp. Total (Includes 1 Switch Pack With Latched
Switches)

60ACW BDY INTG,I/O EXPANSION HARNESS {for Diamond Logic Builder} In-Cab wire
harness (DLB) program only,

Includes a harness with five blunt cut wires routed on lower left of instrument panel. Two
ground active inputs

and two (.5Amp) relay drivers outputs are provided

7382135401 (8) TIRE, REAR 11R22.5 HDL ECO PLUS (CONTINENTAL) 493 rev/mile, load
range H, 16 ply

7792545416 (2) TIRE, FRONT 315/80R22.5 HSU2+ (CONTINENTAL) 481 rev/mile, load
range L, 20 ply

Series: 7000

Model: SF667

Description: 7600 SBA 6X4 2010

Model Year: 2013

Calculation Factors

Wheelbase: 238

Front Axle: 0002ARY

Description: AXLE, FRONT NON-DRIVING, {Meritor MFS-20-133A}

Wide Track, I-Beam Type, 20,000-lb Capacity

Front Wheel: 0027DMW

Description: WHEELS, FRONT, DISC; 22.5" Painted Steel, 5 Hand Hole,

10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric

Mount, 9.00 DC Rims; With Steel Hubs.

Front Tire: 07792545416

Specification for: HAMPSTEAD FIRE DEPARTMENT

Description: TIRES, 315/80R22.5 HSU2+ (CONTINENTAL) 481 rev/mile,
load range L, 20 ply

Steering Gear: 0005PTB

Description: STEERING GEAR, (2) {Sheppard M-100/M-80} Dual Power

Turning Radius Statistics

General Information

Inside Turn Angle: 40 Degrees

Radial Overhang: 30

Axle Information

KingPin Inclination: 6.25 Degrees

KingPin Center: 71

Turning Radius - Curb View

C - Curb Contact Length: 16.23

CI - Curb Clearance Increment: 6.55

CR - Curb Clearance Radius: 36'10"

CH - Curb Height: 6"

TR - Turning Radius: 36'4"

TW - Tire Width: 12.50

* All Measurements are in inches, unless otherwise specified.

This information is based on engineering information available at this time. Actual figures may vary. Navistar, Inc. cannot accept liability for consequences due to this variance.

REAR AXLE TOP SPEED

The rear axle/s shall be geared for a vehicle top speed in accordance with NFPA sections 4.15.2 and 4.15.3.

Units with GVWR over 26,000 pounds shall be limited to 68 mph. If the combined tank capacity is over 1250 gallons of foam and water or the GVWR is over 50,000 pounds, the vehicle top speed shall be limited to 60 mph or the fire service rating of the tires, whichever is lower.

INTERNATIONAL SAE J2433 ROLLOVER TESTING

The International chassis shall comply with SAE J2422 Cab Roof Strength Evaluation. The Cab to Chassis Mounting System shall remain attached to the vehicle chassis and in an orientation similar to its original position when subjected to 20g deceleration load in the forward direction. Components in the mounting system may become distorted or broken but never dislodge from the original mounting location.

DRIVER CONTROLLED DIFFERENTIAL LOCK

The driver controlled differential lock {will/shall} be operated by an air actuated shift assembly that shall be mounted on the axle carrier and controlled by a switch in the dash. When the differential lock is disengaged, there is normal differential action between the wheels of the axle at all times. When the differential lock is engaged the axle shafts and differential assemblies are locked together, and there is no differential action between the wheels and the axle. Note, the DCDL should only be used under poor road conditions and not above speeds of 25 mph, or during downhill operation.

AUTOMATIC TRACTION CONTROL

To further improve vehicle drive characteristics, the chassis shall be fitted with automatic traction control (ATC). This system shall control drive wheel slip during acceleration from a resting point. An extra solenoid valve shall be added to the ABS system. The system shall control the engine and brakes to ensure efficient acceleration. The system shall be equipped with a dash-mounted light that shall come on when ATC is controlling drive wheel slip.

ADDITIONAL POWER MODULE

An additional power module and switch packs shall be added to the chassis to accommodate in cab controls for the dump/chute controls as specified.

BUMPER

The front bumper shall be as provided by the chassis manufacturer.

Specification for: HAMPSTEAD FIRE DEPARTMENT

AUXILIARY AIR INLET

A quick disconnect male auxiliary air inlet shall be provided at the driver's side door area at a location to be determined at a pre-construction conference. A mating quick disconnect female connector shall be shipped loose with the apparatus. This shall allow a Hampstead Fire Department furnished external air supply to be connected to the chassis air system.

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.

MUD FLAPS

Black rubber mud flaps shall be provided on the front fenders.

FUEL TANK TREAD PLATE

The step type fuel tank shall be overlaid with polished aluminum tread plate. This shall include the top, front and both ends. Step areas shall be provided for access to the cab. Step areas shall be fabricated from Alcoa "No-Slip" tread plate.

BATTERY BOX TREAD PLATE

The battery box shall be overlaid with polished aluminum tread plate. The cover of this box shall be easily removable for inspection of the batteries.

ANTENNA INSTALLATION

One (1) antenna mounting base(s) model #MATM 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 Hampstead Fire Department is responsible to have the correct antenna whip installed once the apparatus is delivered.

LICENSE PLATE BRACKET

A chrome plated license plate bracket shall be provided on the front bumper of the apparatus.

TIRE PRESSURE MONITORING DEVICES

Each tire shall be equipped with an air pressure indicator cap on the valve stem. Each cap shall have a visual LED indicator to show if the tire is correctly inflated.

VEHICLE DATA RECORDER

An Akron/Weldon Vehicle Data Recorder (VDR) and Seat Belt monitor 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)
- Seat belt monitoring (seat occupied with seat belt)
- Surface or panel mount
- 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
- Data interface for data download
- PC / Mac Compatible
- Hours Driven
- Data summary reports
- Last Minute Log
- Idle Time
- Differential lock control switch
- "Driver Diff Lock" indicator

PUMP SHIFT CONTROL

The pump shift control and pump engaged indicator light shall be mounted in the driver's lower left panel. This control shall be equipped with a mechanical type lock to prevent inadvertent activation or de-activation. The lever positions and indicator light shall be clearly marked.

The driver controlled differential lock shall be operated by an air actuated shift assembly that shall be mounted on the axle carrier and controlled by a switch in the dash. When the differential lock is disengaged, there is normal differential action between the wheels of the axle at all times. When the differential lock is engaged the axle shafts and differential assemblies are locked together, and there is no differential action between the wheels and the axle. Note, the DCDL should only be used under poor road conditions and not above speeds of 25 mph, or during downhill operation.

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.

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.

INTERNATIONAL MULTIPLEXED ELECTRICAL SYSTEM

The electrical system for the entire apparatus shall feature the International® Diamond Logic® Electrical System. This solution is to be built on a multiplexed architecture containing technologies in components such as solid state power switches, self calibrating gauges and low current switch devices used for driver controls, like rocker switches and HVAC controls. The low current system and solid state switching results in maximum reliability and durability.

At the heart of International® Diamond Logic™ electrical system is the Electronic System Controller (ESC) which functions as the gatekeeper or central processor. The ESC continually monitors the vehicles electrical system and controls, including the engine, transmission, cab and Hampstead Fire Department installed truck equipment, so that they all communicate and work together.

In addition the Diamond Logic® Electrical system consists of International factory installed, Remote Power Modules (RPMs) and factory installed switches and warning lights. This combination of factory installed equipment eliminates the need to cut into the chassis wiring and central wiring to one point outside the cab.

The Diamond Logic® Electrical System allows fully customizable logic to carry out functions which up until now required hard-wired circuits and component. The use of the system shall enable the manufacturer to reduce; if not eliminate; conventional circuit interlock and power supply components for all body builder installed functions as specified by the Hampstead Fire Department. The programmable system must allow for automation of tasks, custom features and safety interlocks to meet complex application requirements resulting in increasing functionality and reducing wiring the wiring used in equipment by up to 70%.

Specification for: HAMPSTEAD FIRE DEPARTMENT

The vehicle shall be programmed by the apparatus manufacturer's engineering staff and not only stored in manufacturer's engineering database, but also uploaded to International which shall enable any International Dealer location to maintain, troubleshoot or repair the entire system installed on the apparatus, NOT just the chassis.

This multiplex system shall control both chassis and body functions including but not limited to emergency lighting, scene lighting, compartment lighting, and door ajar circuitry. Systems that utilize a multiplexed chassis with a hard wired body, or two different multiplex systems, shall not be considered.

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)

BATTERY DISCONNECT SWITCH

The chassis batteries shall be wired in parallel to a single 12 volt electrical system, controlled through a heavy duty, rotary type, 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

A 120 volt shoreline connection with a weather tight cover shall be provided. The receptacle shall be a standard house-hold, recessed male plug in, which shall be wired to the specified on board battery charging system. 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).

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

BATTERY CHARGER SYSTEM

A Kussmaul model # 091-170-12, "Auto Charge 12 HO" high output, fully automatic battery charger shall be provided for maintaining the vehicle battery system. Remote voltage sensing shall be provided to compensate the charger output for the voltage drop in the charging wires. Output current shall be 20 amperes @ 12 volt DC. A built-in ammeter shall be provided.

SHORELINE RECEPTACLE

One (1) 120 volt 5-15 R household type receptacle shall be located in the rear crew area of the cab as directed. The receptacle shall be wired into the shoreline receptacle to provide a 120 volt power source for Hampstead Fire Department equipment.

SHORELINE RECEPTACLE

One (1) 120 volt 5-15 R household type receptacle shall be located in the specified body compartment as directed. The receptacle shall be wired into the shoreline receptacle to provide a 120 volt power source for Hampstead Fire Department equipment.

REMOTE CONTROLLED CAB SPOTLIGHT

A Federal model # 620102 "VisiBeam" remote controlled spotlight shall be provided and mounted on the officer side of the cab roof. The VisiBeam spotlight shall be equipped with a 55 watt spotlight and shall be controlled from the cab. The remote control shall be mounted in easy reach of the driver and officers or as directed by the Hampstead Fire Department.

"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 through the parking brake switch to signal when the parking brake is released. This light shall be labeled "DO NOT MOVE TRUCK".

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12 VOLT POWER PORT

Two (2) 12 volt power port accessory outlets shall be installed in the cab of the truck for the Hampstead Fire Departments accessory devices. The lighters shall be located as directed in the cab for devices such as cellular phones.

12 VOLT ACCESSORY CIRCUIT

A dedicated 12 volt power and ground circuit shall be provided in the specified body compartment as required. The circuit shall be for future installation of radios or accessories.

FEDERAL SIGNAL REAR CAMERA SYSTEM

A Federal Signal model # CAMSET56-NTSC-2 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 a Federal 5.6" flat panel LCD color monitor mounted adjacent to the driver and a Federal rear vision color camera that shall be mounted at the rear of the vehicle. The system shall also feature a microphone on the camera and speaker built into the monitor. The rear vision camera system shall be wired to automatically activate when the chassis transmission is placed in reverse.

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 also be provided as required.

Truck-Lite Model #19 red LED clearance lights shall be provided on the apparatus rear upper, one (1) each side at the outermost practical location.

Truck-Lite Model # 33740R LED 3-lamp identification bar shall be provided on the apparatus rear center. The lights shall be red in color.

Truck-Lite # 98034Y 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.

Truck-Lite # 98034R red reflectors shall be provided on the apparatus rear, one (1) each side at the outermost practical location.

LICENSE PLATE LIGHT - REAR

One (1) Weldon model # 9186 license plate light shall be provided above the mounting position of the license plate. The light shall be clear and shall have a chrome finish.

TAIL, STOP, TURN AND BACK-UP LIGHTS

One (1) Federal, QL64Z3V-LEFT and one (1) QL64Z3V-RIGHT 4" x 6", QuadraFlare stack shall be mounted, one each side, at the rear of the body. Each stack shall include a red LED stop/tail light, amber arrow LED turn signal, white LED reverse light and a triple stack, polished aluminum, mounting bezel.

BODY STEP LIGHTS

Chrome plated Weldon model # 9186, shielded halogen 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.

DUNNAGE AREA LIGHTING

Two (2) chrome plated Weldon model # 9186, shielded halogen lights shall be provided in the dunnage area to provide adequate illumination of this area.

SCENE LIGHTS - REAR OF BODY

Two (2) Federal #QL97LEDSCENE 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 controlled by a rocker switch in the master warning light switch console. All scene lights shall be wired through the load management system.

SCENE LIGHTS - SIDE OF BODY, FRONT

Two (2) Federal #QL97LEDSCENE LED scene lights shall be provided. The scene lights shall be mounted one each side, to the front, on the upper side body panel in a chrome plated flange. The scene lights shall be controlled by a rocker switch in the master warning light switch console. All scene lights shall be wired through the load management system.

SCENE LIGHTS - SIDE OF BODY, REAR

Two (2) Federal #QL97LEDSCENE LED scene lights shall be provided. The scene lights shall be mounted one each side, to the rear, on the upper side body panel in a chrome plated flange. The scene lights shall be controlled by a rocker switch in the master warning light switch console. All scene lights shall be wired through the load management system.

GROUND LIGHTS - CAB

One (1) rubber mounted halogen ground light shall be provided under each side cab door entrance step, two (2) total. 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. The rear crew door ground lights shall be positioned at an angle rearward to provide illumination at the pump panel and the front of the body work areas.

ROOF MOUNT 155W LED BROW LIGHT - ABOVE WINDSHIELD

Fire Research Evolution LED model FCA800-V15 contour roof mount light shall be installed. The mounting brackets shall attach to the bottom of the lamp head and be machined to conform to the roof radius. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.

The lamp head shall have eight (8) ultra-bright white LEDs. It shall operate at 12 volts DC, draw 13 amps, and generate 15,000 lumens. The lamp head shall direct 50 percent of the light onto the action area while providing 50 percent to illuminate the working area. The lamp head shall incorporate heat-dissipating fins and be no more than 4" high by 11 1/2" wide. The lamp head and mounting arm shall be powder coated white. The floodlight shall be for fire service use.

The Evolution brow mounted flood light shall be located above the windshield in the center of the cab.

LIGHTS ABOVE WINDSHIELD MASTER POWER SWITCH

A master power switch shall be provided in the cab warning light switch console to turn the lights above windshield on and off.

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.

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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 in the left side lower front compartment. This compartment shall be recessed through the inside rear wall of the compartment to 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 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 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 equal) lights shall be provided inside the engine enclosure that shall provide a minimum of 20 candlepower illumination. Each light shall have their own independent switch incorporated into the light head.

AMDOR LUMA BAR TRACK MOUNTED COMPARTMENT LIGHTS - LED

Each individual, equipment storage compartment shall be equipped with the AMDOR Luma Bar LED light fixture mounted one each side of the forward (and rear) vertical door frame.

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" as noted.

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

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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.

NFPA ZONE A, UPPER

A Federal Signal #JLX5401 "Jetstream Solaris", 54" LED cab roof warning light bar shall be furnished and rigidly mounted on top of the cab roof. The lightbar shall be equipped with the following:

- Red Domes
- Eight (8) Red Large Solaris LED Reflectors
- Six (6) Red Small Solaris LED Reflectors
- No Rear Lighting.

The forward facing clear lights shall be disabled automatically for the "Blocking Right of Way" mode.

NFPA ZONE C, UPPER

One (1) Federal Signal ME2QLDC-R and ME2QLPC-A MicroEscape LED beacons shall be furnished and mounted one (1) each side at the rear, upper portion of the apparatus. Clear lenses {will/shall} be provided on each light to meet NFPA requirements. Each light {will/shall} be 9.0" L x 10.5" W x 4.5" H.

NFPA ZONES B & D REAR, UPPER

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

NFPA ZONES B & D FRONT, UPPER

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

NFPA ZONE A, LOWER

Two (2) Federal Signal Viper EXT # VPX802-4 flashing LED light heads shall be provided and installed one (1) each side. Each light shall be equipped with a red lens and chrome plated mounting flange.

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

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NFPA ZONE C, LOWER

Two (2) Federal Signal QuadraFlare # QL64XF-R flashing LED light heads shall be provided and installed; one (1) each side directly below the DOT stop, tail, turn and backup lights. Each light shall be equipped with a red lens and chrome plated mounting flange. The LED lights shall be equipped with an internal flasher.

NFPA ZONES B & D FRONT, LOWER

Two (2) Federal Signal Viper EXT # VPX802-4 flashing LED light heads shall be provided and installed one (1) each side. Each light shall be equipped with a red lens and chrome plated mounting flange. The LED lights shall be equipped with an internal flasher.

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) Federal Signal QuadraFlare # QL64XF-R flashing LED light heads shall be provided and installed one (1) each side. Each light shall be equipped with a red lens and chrome plated mounting flange. The LED lights shall be equipped with an internal flasher.

NFPA ZONES B & D REAR, LOWER

Two (2) Federal Signal QuadraFlare # QL64XF-R flashing LED light heads shall be provided and installed one (1) each side. Each light shall be equipped with a red lens and chrome plated mounting flange. The LED lights shall be equipped with an internal flasher.

WARNING LIGHT SYSTEM CERTIFICATION

The warning light system 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 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.

3M OPTICOM SYSTEM

One (1) 3M Opticom system, which produces a flashing optical signal when in operation, shall be provided and mounted inside the cab roof light bar, replacing the center mounted clear warning light and situated so as not to interfere with the required light patterns of the NFPA Optical Warning Light System.

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Controls for the system shall be provided independently of the Optical Warning Light System, with the wiring run through the Load Management System at the lowest available priority. Additional circuitry shall be provided to automatically disable the Opticom System when the parking brake is engaged.

BACK-UP ALARM

A Federal Signal, Evacuator Plus # 210339, 97dBA 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 horns 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.

ELECTRONIC SIREN

One (1) Whelen # 295SLSA1, 100 watt electronic siren shall be provided featuring: bottom mount control head in cab, "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 polished aluminum siren speakers shall be provided, recessed in the front bumper and wired to the electronic siren.

FEDERAL Q2B MECHANICAL SIREN

One (1) Federal Model #Q2B mechanical siren shall be provided to provide audible warning.

The Q2-B siren shall be semi-recessed into the bumper on the driver's side. The siren shall be recessed so the front grille portion of the siren is exposed and protruding beyond the bumper.

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.

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PUMP

- **HALE Q-FLO PLUS**
- **750 G.P.M.**
- **SINGLE STAGE**

The pump must deliver the percentage of rated capacity at the pressure listed below:

- 100% of rated capacity at 150 P.S.I. net pump pressure
- 100% of rated capacity at 165 P.S.I. net pump pressure
- 70% of rated capacity at 200 P.S.I. net pump pressure
- 50% of rated capacity at 250 P.S.I. net pump pressure.

PUMP ASSEMBLY

The pump shall be of a size and design to mount on the chassis rails of commercial and custom truck chassis, and have the capacity of 750 gallons per minute (U.S. GPM), NFPA-1901 rated performance.

PUMP CONSTRUCTION

The entire pump shall be manufactured and tested at the pump manufacturer's factory.

The pump shall be driven by a drive line from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and exceed its rated performance.

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI (41.3 BAR). 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.

The pump body and related parts shall be of fine grain alloy cast iron, with a minimum tensile strength of 30,000 PSI (2069 BAR). All moving parts in contact with water shall be of high quality bronze or stainless steel. Pumps utilizing castings made of lower tensile strength cast iron are not acceptable.

Pump body shall be vertically split, on a single plane, for easy removal of impeller assembly, including clearance rings.

PUMP SHAFT

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. The pump shaft shall be heat-treated, electric furnace, corrosion resistant, stainless steel. Pump shaft must be sealed with double lip oil seal to keep road dirt and water out of gearbox.

PUMP IMPELLER

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.

Impeller clearance rings shall be bronze, easily renewable without replacing impellers or pump volute body.

MECHANICAL SHAFT SEAL

The midship pump shall be equipped with a high quality, spring loaded, self-adjusting mechanical seal capable of providing a positive seal to atmosphere under all pumping conditions. This positive seal to atmosphere must be achievable under vacuum conditions up to 26 Hg (draft) or positive suction pressures up to 250 PSI.

The mechanical seal assembly shall be 2 inches in diameter and consists of a carbon sealing ring, stainless steel coil spring, Viton rubber boot, and a tungsten carbide seat with a Teflon backup seal provided.

Only one (1) mechanical seal shall be required, located on the suction side of the pump and be designed to be compatible with a one piece pump shaft. A continuous cooling flow of water from the pump shall be directed through the seal chamber when the pump is in operation.

GEARBOX

The drive unit shall be completely assembled and tested at the pump manufacturer's factory.

The drive unit shall be of sufficient size to withstand up to 16,000 lbs. ft. of torque of the engine in both road and pump operating conditions. The drive unit shall be designed of ample capacity for lubrication reserve and to maintain the proper operating temperature.

The gearbox drive shafts shall be of heat treated chrome nickel steel and at least 2-3/4 inches in diameter on both the input and output drive shafts. They shall withstand the full torque of the engine in both road and pump operating conditions.

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All gears, drive and pump shall be of the 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 spur design shall be provided to eliminate all possible end thrust.

PUMP RATIO

The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.

The manufacturer shall supply at time of delivery copies of the pump manufacturer's certification of hydrostatic testing, the engine manufacturer's current certified brake horsepower curve.

PUMP SHIFT CONTROL

The drive unit shall be equipped with a power shift. The shifting mechanism shall be a heat treated, hard anodized aluminum power cylinder with stainless steel shaft. An air operated in-cab control for rapid shift shall be provided that locks in road or pump, with a neutral position for use when manual override is required.

MAIN PUMP - PUMP SHIFT INDICATOR LIGHTS

For automatic transmissions, three (3) green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift for Road to Pump position. Two (2) green lights to be located in the truck driving compartment and one (1) green light on pump operator's panel adjacent to the throttle control. For manual transmissions, one (1) green warning light shall be provided for the driving compartment. All lights to have appropriate identification/instruction plates.

TRANSMISSION LOCK

The automatic transmission furnished in the chassis shall have a lock-up assembly which brings the transmission to direct drive and prevents the transmission from shifting gears while in the pumping mode.

BRAKING SYSTEM

A positive braking system shall be provided to prevent vehicle movement during pumping operations. The air brakes furnished must satisfy this requirement.

MAIN 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 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.

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Pumps which are not mounted directly to the frame shall not be considered. Under no circumstance shall the pump function as a frame cross member.

PUMP MANIFOLDS

A custom made suction and discharge manifold shall be constructed from stainless steel and/or flexible tubing. The manifold shall be designed to provide maximum efficiency for the suction inlets and the discharges. .

DISCHARGE PRESSURE RELIEF VALVE

The pump shall be equipped with a Hale Model "P-25", automatic pressure control device. A single bronze, variable pressure setting relief valve shall be provided and be of ample capacity to prevent an undue pressure rise as per NFPA-1901. The relief valve shall be normally closed and shall open against pump pressure, with a control light to signal when open. In event of relief valve control failure, the pump is to remain operable for the complete range of the pump's rated capacity, without requiring the closing of any emergency or "in case of failure" (off/on) valves.

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).

PRIMING PUMP

The priming pump shall be a Trident air primer system. A push in primer handle shall open the priming valve and prime the pump.

MASTER DRAIN VALVE

A rotary type, 12 port master drain valve shall be provided and controlled at the lower portion of the side pump panel. The valve shall be located in pump compartment lower than the main body and connected in such a manner as to allow complete water drainage of the pump body and all required accessories. Water shall be drained below the apparatus body and away from the pump operator.

INDIVIDUAL BLEEDERS AND DRAINS

All lines shall drain through the master drain valve or shall be equipped with individual drain valves, easily accessible and labeled.

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One (1) individual "CLASS ONE" quarter turn drain valve shall be furnished for each 1-1/2" or larger discharge port and each 2-1/2" gated auxiliary suction.

Drain/bleeder valves shall be located at the bottom of the side pump module panels.

All drains and bleeders shall discharge below the running boards.

SYNFLEX SUCTION, DISCHARGE, PRESSURE AND CONTROL LINES

Small lines within the pump enclosure shall be constructed from Synflex hose. Uses include, but are not limited to such lines as priming control, gauge lines, drain lines, air control valves, pump shift, supplemental cooling, foam flush and air bleeder valves.

PUMP MODULE

The pump module shall be a self-supported structure mounted independently from the body and chassis cab. The design must allow normal frame deflection without imposing stress on the pump module structure or side running boards. The pump module shall be securely mounted to the chassis frame rails.

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

DUNNAGE AREA

A dunnage area shall be provided above the pump enclosure for equipment mounting and storage. This area shall be furnished with a removable 3/16" aluminum tread plate floor and shall be enclosed on the sides.

SUCTION INLETS

Two (2) 6" N.S.T. suction inlets shall be provided, one on the driver side and one on the officer side pump panel. A removable strainer shall be installed on each inlet.

PUMP SUCTION ENDS

The main pump suction inlets shall be furnished with an elongated suction end.

One (1) 6" NH x 5" Storz Elkhart Piston Intake Valve # 9786 and 5" storz cap shall be provided for the driver side main suction inlet.

One (1) 6" NH x 5" Storz Elkhart Piston Intake Valve # 9786 and 5" storz cap shall be provided for the officer side main suction inlet.

AUXILIARY SIDE SUCTION

One (1) 2-1/2" auxiliary suction shall be provided at the driver side pump panel, to the rear of the main inlet. The 2-1/2" auxiliary suction shall terminate with a removable strainer, chrome plated 2-1/2" NST female swivel with a chrome plated plug and retaining chain.

An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the driver's side rear auxiliary suction. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

A 1/4 turn swing control handle shall be provide on the driver side rear auxiliary suction valve

All side gated inlet valves shall be recess mounted behind the side pump panels or body panels. (No Exceptions)

TANK TO PUMP

One (1) 3" tank to pump line shall be, piped through the front bulkhead of the tank with a 90 degree elbow down into the tank sump. This line shall be plumbed directly into the rear of the pump suction manifold for maximum efficiency.

A check valve shall be provided to prevent accidental pressurization of the water tank through the pump connection. Connection from the valve to the tank shall be made by using a non-collapsible flexible rubber hose.

TANK FILL

One (1) 2 1/2" gated full flow pump to tank refill line controlled at the pump panel shall be provided. A deflector shield inside the tank shall be furnished. Tank fill plumbing shall utilize 2 1/2" high pressure hose for tank connection to accommodate flexing between components. (NO EXCEPTIONS)

An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided between the pump discharge manifold and the water tank. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

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A push/pull control handle shall be located on the operator's panel with function plate.

DRIVER'S SIDE MAIN DISCHARGE #1

A discharge shall be provided and located at the driver's side pump panel. The driver's side discharges # 1 shall terminate with NST threads, through the left panel above the main pump intake.

The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the driver's side #1 discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

2-1/2" NSTF X 1-1/2" NSTM reducer with cap shall be provided on the driver's side # 1 discharge.

The discharge valve shall be equipped with integral 2 1/2" NST, 30 degree, chrome plated elbow.

The driver's side # 1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The driver's side # 1 discharge shall be equipped with a 2 1/2" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

OFFICER'S SIDE MAIN DISCHARGE #1

A discharge shall be provided and located at the officer's side pump panel. The officer's side discharges #1 shall terminate with NST threads, through the officer's side panel above the main pump intake.

The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

An Akron Brass 3" Generation II Swing-Out™ Valve shall be provided for the officer's side #1 discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing device. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

The discharge valve shall be equipped with a straight 3" NST adapter.

A 3" NSTF X 5" Storz Kochek SKE-R 30° adapter with cap shall be provided on the officer's side # 1 discharge.

The officer's side # 1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The officer's side # 1 discharge shall be equipped with a 2 ½" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

OFFICER'S SIDE MAIN DISCHARGE #2

A discharge shall be provided and located at the officer's side pump panel. The officer's side discharges #2 shall terminate with NST threads, through the officer's side panel above the main pump intake.

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The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.

An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the officer's side #2 discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

The discharge valve shall be equipped with a straight 2 1/2" NST adapter that shall be equipped with a 2 1/2" NST, 30-degree, chrome plated elbow.

A 2-1/2" NSTF X 1-1/2" NSTM reducer w/cap shall be provided on the officer's side #2 discharge.

The officer's side #2 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The officer's side #2 discharge shall be equipped with a 2 1/2" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

OFFICER SIDE REAR DISCHARGE

A 2 1/2" NST rear discharge shall be provided at the rear of the vehicle, plumbed from the pump.

The rear discharge shall terminate on the rear body panel, on the officer side of the body.

The officer side rear discharge pipe shall be equipped with a chrome 2 1/2" NSTM thread adapter.

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The officer side rear discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the rear of the vehicle.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the officer's side rear discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing device. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

The officer side rear discharge valve shall be controlled by a push/pull handle located on the operator's panel.

2-1/2" NSTF X 1-1/2" NSTM reducer(s) with cap shall be provided on the officer's side rear discharge.

The officer side rear discharge shall be equipped with a 2 1/2" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

DECK GUN DISCHARGE

A deck gun discharge shall be plumbed from the pump to an area on top of the vehicle. The deck gun piping shall be firmly supported and braced.

The deck gun discharge shall be located in the dunnage area above the pump module on the officer's side of the vehicle. A pedestal type, 1/4" steel plate support assembly shall be provided to stabilize deck gun plumbing below deck gun mount flange.

The deck gun discharge pipe shall terminate with 3" NPT threads.

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The deck gun piping shall be designed so the overall height of the deck gun in the mounted/stowed position does not exceed the tallest point on the cab/body.

The deck gun discharge shall be plumbed utilizing 3" schedule 10 stainless steel piping, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the deck gun location.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

An Akron Brass 3" Generation II Swing-Out™ Valve shall be provided for the deck gun discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

The deck gun discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The deck gun discharge shall be equipped with a 2 ½" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

ELKHART STINGER MANUAL DECK GUN

An Elkhart Stinger model # 8297 deck gun shall be supplied and mounted on the deck gun discharge. This will include an ANSI top mount flange. The monitor shall be equipped with a portable ground base with a 5" Storz inlet. The monitor shall come equipped with a set of stack tips # ST-194 and model # 282A stream shaper. The monitor shall also include the following: Pressure gauge on the monitor, carry handle for portable usage, grease fittings for maintenance, safety chains, hardened steel ground spikes and Pyrolite construction.

HORIZONTAL CROSSLAY #1

A crosslay hose bed shall be provided and plumbed from the pump in a transverse design, located above the pump enclosure for quick attack deployment. The crosslay hose bed flooring shall be designed to be removable, constructed from brushed finish, perforated aluminum material.

Crosslay #1 shall be designed to have a minimum total capacity of 3.5 cubic feet as required by NFPA -1901 to accommodate a minimum of 200 feet of 1-3/4" fire hose.

Crosslay #1 hose bed shall be designed to accommodate the fire hose in a single stack configuration.

The crosslay discharge shall terminate below the hosebed floor with a 1 1/2" NSTM chicksan swivel adapter. The crosslay hose bed floor shall be slotted to allow the swivel to extend up through the floor, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.

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

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided for the crosslay #1 discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

The crosslay #1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The crosslay #1 discharge shall be equipped with a 2 1/2" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

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The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

HORIZONTAL CROSSLAY #2

A crosslay hose bed shall be provided and plumbed from the pump in a transverse design, located above the pump enclosure for quick attack deployment. The crosslay hose bed flooring shall be designed to be removable, constructed from brushed finish, perforated aluminum material.

Crosslay #2 shall be designed to have a minimum total capacity of 3.5 cubic feet as required by NFPA -1901 to accommodate a minimum of 200 feet of 1-3/4" fire hose.

Crosslay #2 hose bed shall be designed to accommodate the fire hose in a single stack configuration.

The crosslay discharge shall terminate below the hose bed floor with a 1 1/2" NSTM chicksan swivel adapter. The crosslay hose bed floor shall be slotted to allow the swivel to extend up through the floor, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.

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

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided for the crosslay #2 discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

The crosslay #2 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The crosslay #2 discharge shall be equipped with a 2 1/2" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration,

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lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

HORIZONTAL CROSSLAY #3

A crosslay hose bed shall be provided and plumbed from the pump in a transverse design, located above the pump enclosure for quick attack deployment. The crosslay hose bed flooring shall be designed to be removable, constructed from brushed finish, perforated aluminum material.

Crosslay #3 shall be designed to have a minimum total capacity of 3.5 cubic feet as required by NFPA -1901 to accommodate a minimum of 200 feet of 2 1/2" fire hose.

Crosslay #3 hosebed shall be designed to accommodate the fire hose in a single stack configuration.

The crosslay discharge shall terminate below the hosebed floor with a 2 1/2" NSTM chicksan swivel adapter. The crosslay hose bed floor shall be slotted to allow the swivel to extend up through the floor, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.

The crosslay #3 discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping and/or flexible hose, 45 degree threaded elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to crosslay hosebed.

A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.

An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the crosslay #3 discharge. The valve shall be equipped with the Akron "Tork-Lok" feature. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. All stainless steel parts shall be 316 grade for increased resistance to corrosion. The valve shall be compatible with a slow closing devise. The valve shall be quickly adjustable to one of eight handle options and require only 90° travel.

The valve shall carry a 10 year manufacturer's warranty.

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The crosslay #3 discharge valve shall be controlled by a push/pull handle located on the operator's panel.

The crosslay #3 discharge shall be equipped with a 2 ½" diameter Noshok pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with a synthetic mixture to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.

The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.

A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.

DEADLAY STORAGE AREA

A deadlay storage area shall be provided on the top of the pump enclosure to accommodate 200 feet of 5" LDH. The hose storage area shall have a floor of perforated aluminum material and the sides shall be lined with brushed aluminum material.

PUMP ENCLOSURE HOSEBED HOSE RETENTION

A vinyl cross lay cover shall be provided. It shall be securely fastened at the front with snaps and Velcro at the rear, with straps to secure each end flap.

The crosslay cover shall be red in color.

PUMP PANEL - SIDE MOUNT

The pump operator's control panel shall be located on the driver side of the apparatus. The pump enclosure side panels shall be completely removable and designed for easy access and servicing.

PUMP PANEL MATERIAL

The left side operator's panel, gauge panel, right side pump panel and right side access door shall be fabricated from 12-gauge 304L stainless steel with a #4, (150/180 grit), standard brushed finish.

HINGED GAUGE PANEL

A full width, vertically hinged gauge access panel shall be provided at the operator's position. Chrome plated positive locks shall be provided along with chain holders to prevent the front of the gauge panel from coming in contact with other panels when open.

VERTICALLY HINGED, SPLIT PUMP PANEL OFFICER SIDE

The officer's side pump panel shall be split, vertically hinged, to provide complete access to the pump and plumbing on the officer side of the pump enclosure. The panels shall be equipped with stainless steel hinges and secured with push type locks to hold the panels closed. The drains located on the officer's side panel shall be fastened to the lower panel, which shall be stationary.

PANEL FASTENERS

Stainless steel machine screws and lock washers shall be used to hold these panels in position. The panels shall be easily removable to provide complete access to the pump for major service.

CAPS AND ADAPTERS SAFETY TETHER

All applicable discharge and suction caps, plugs and adapters shall be equipped with chrome plated ball chain or double looped coil chain and secured to the vehicle.

PUMP PANEL TRIM PLATES

A high polish stainless steel trim plate shall be provided around each discharge port and suction inlet opening to allow accessibility to the respective valve for service and repairs.

DISCHARGE GAUGE TRIM BEZELS

Each individual discharge gauge shall be installed into a decorative chrome-plated mounting bezel that incorporates valve-identifying verbiage and color labels.

COLOR CODED IDENTIFICATION TAGS

Color coded identification tags shall be provided for all gauges, controls, connections, switches, inlets and outlets.

PUMP OPERATOR'S PANEL LIGHT SHIELD

The pump operator's panel shall be equipped with a light shield that shall be full width of the control panel, and shall be positioned to cover the lights and prevent glare.

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The light shield shall be equipped with the following lights:

- Four (4) Weldon #2630 halogen lights.

One (1) light under the operator's panel light shield shall be actuated when fire pump is engaged in addition to the pump engaged light.

OFFICER SIDE PANEL LIGHTING

The officer's side pump panel and running board shall be illuminated by the following lights:

- Two (2) Weldon #9186 halogen shielded step lights.

The lights shall be switched with the main pump panel lights.

PUMP OPERATOR'S PANEL

Particular attention is to be given to functional arrangement of all controls. The pump operator's panel shall accommodate the following:

- Hinged gauge panel
- Water tank fill valve
- Auxiliary suction valve control
- All discharge valve controls
- Auxiliary engine cooler controls
- Water tank suction control valve
- Pump primer valve
- Engine throttle control
- Master compound vacuum gauge
- Master pressure gauge
- Individual discharge gauges
- Pump shift engaged indicator light
- Water tank water level indicator
- Engine tachometer
- Engine oil pressure gauge with audible alarm
- Engine water temperature gauge with audible alarm
- Low voltage light and audible alarm
- Pump panel light switch
- Speed counter (Underwriters)
- Pump performance plate (Underwriters)
- Pump serial No. plate
- Master pump drain valve
- Individual drains
- Voltmeter
- Fire research "ThrottleXcel" throttle control.

PUMP TEST PORTS

The pump panel shall be equipped with Vacuum & Pressure test plugs to allow for test equipment to monitor pump pressure and vacuum levels. Chrome plugs and labels shall be provided for the test ports.

MASTER GAUGES

One (1) 4" diameter pressure gauge (labeled: "PRESSURE") and one (1) 4" diameter compound vacuum gauge (labeled: "INTAKE") shall be provided. The master gauges shall be "No Shok", silicone filled. The gauge faces shall be white with black numerals.

PRESSURE & COMPOUND GAUGE RANGES

All applicable pressure gauges shall have a range of 0 - 400 P.S.I., and the compound gauge shall have a range of -30" - 0 - 400 P.S.I.

THROTTLE CONTROL AND MONITORING DISPLAY

The apparatus shall be equipped with a Fire Research ThrottleXcel model ELA200-A00 engine throttle and monitoring display shall be installed. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8" wide by 1 1/2" deep. The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1 3/4" from the front of the control module. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.

The engine RPM shall be set to idle when the pump engaged interlock signal is recognized regardless of the throttle control knob position. Optical technology shall be used to detect the direction and speed that the control knob rotated for RPM control.

The following continuous displays shall be provided:

- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Check engine and stop engine warning LEDs
- Oil pressure; shown on a dual color (green/red) LED bar graph display
- Engine coolant temperature; shown on a dual color (green/red) LED bar graph display
- Transmission Temperature: shown on a dual color (green/red) LED bar graph display
- Battery voltage; shown on a dual color (green/red) LED bar graph display
- Interlock; OK TO PUMP LED is green to indicate throttle ready.

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A dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. Operator selections and inputs shall be via push buttons on the front panel.

The program shall store the accumulated operating hours for the pump and engine, previous incident hours, and current incident hours in a non-volatile memory. Stored elapsed hours shall be displayed at the push of a button. The program shall have calibration and self-diagnostic capabilities. It shall monitor inputs and support audible and visual warning alarms for the following conditions:

- Low Oil Pressure
- High Engine Coolant Temperature
- High Transmission Temperature
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Battery Voltage
- High Engine RPM.

The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

ENGINE COOLER

An auxiliary cooler or heat exchanger shall be installed in the engine compartment between the engine and the chassis radiator. The cooler shall permit the use of water from the pump for cooling system. The cooling shall be done without mixing engine and pump water.

TANK LEVEL GAUGE

A Fire Research, model #WLA200-A00, "TANKVISION" gauge that shows the actual volume of water in the tank shall be provided on the pump operator's panel. The "TANKVISION" gauge is designed for both ease of operation and installation. The "TANKVISION" gauge utilizes ultra bright LEDs for sunlight readability and also uses 2 specially designed wide-viewing lens for 180° of clear viewing. The "TANKVISION" gauge utilizes a pressure sender to measure the liquid volume. The gauge shall be equipped self-calibration feature allows the LED's TANKVISION gauge to be used on tanks of different shapes and sizes.

Features:

- Flashes warning when the volume is less than 25%. Rapid down scrolling LED's alert the operator when the tank is almost empty. Remote audio warning available.
- One size fits all'. The self-calibration feature allows for easy calibration of any shape or size tank.
- Multiple displays are possible with a single sender through the FRC data bus.
- Rugged waterproof cast aluminum housing.

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- No fitting needed for poly tank.
- Special fittings available for other tank materials.
- Connector disconnects at back of display.

CAB TANK LEVEL GAUGE

A Fire Research model, WLA205-A00 miniature "TANKVISION" gauge that shows the actual volume of water in the tank shall be provided in the cab. The "TANKVISION" gauge is designed for both ease of operation and installation. The "TANKVISION" gauge utilizes ultra bright LED's for sunlight readability and also uses 2 specially designed wide-viewing lens for 180° of clear viewing. The "TANKVISION" gauge utilizes a pressure sender to measure the liquid volume. The gauge shall be equipped self-calibration feature allows the TANKVISION gauge to be used on tanks of different shapes and sizes.

The gauge shall use a pressure transducer installed near the bottom of the water tank to determine the correct volume in the tank.

A Fire Research model #WLA290, 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 BODY

A large light water level gauge system shall be provided on both sides of the body. Each side shall have four (4) Whelen 500 series linear LED lights mounted on the body as directed. Each light shall be surface mounted on the sides of the body using a chrome plated #5LSMAC flange.

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

- Top light with green lens Full tank
- Second light with blue lens 3/4 tank
- Third light with amber lens 1/2 tank
- Fourth light with red lens 1/4 tank

The fourth light shall burn steady red 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.

LARGE LIGHT WATER LEVEL GAUGE, REAR OF BODY

A large light water level gauge system shall be provided on the rear of the body. Four (4) Whelen 500 series super LED lights shall be surface mounted using a chrome plated flange.

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

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- Top light with green lens Full tank
- Second light with blue lens 3/4 tank
- Third light with amber lens 1/2 tank
- Fourth light with red lens 1/4 tank

The fourth light shall burn steady red 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 3000 gallons, constructed from polypropylene material.

WATER 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 technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method shall 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 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.

WATER TANK 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's III is 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

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maximum fill and pressure rates, the serial number of the tank, the date of manufacture, the tank manufacturer, and contact information. The QR code shall allow the user to connect with the tank manufacturer for additional information and assistance.

WATER TANK LID

The tank cover shall be constructed of 1/2" thick PT3 polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary. The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity. Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart. These dowels shall extend through the covers and shall assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowers shall accommodate the necessary lifting hardware.

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 12" x 36" 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 left front corner of the tank unless otherwise specified by the tank manufacturer to the Hampstead Fire Department. 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 overflow/vent pipe running from the fill tower through the tank to a 6" coupling flush mounted into the bottom of the tank to allow water to overflow behind the chassis rear axle.

WATER TANK SUMPS

Both water tank sumps shall be a minimum of 10" wide x 10" long x 3" deep. An anti-swirl plate shall be mounted inside each sump, approximately 1" above the bottom of the sump.

WATER TANK SUMP CONNECTION

The front bulkhead of the water tank shall be fitted with one (1) front and one (1) rear. A 3" drain plug shall be provided for each sump.

WATER TANK 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" NEWTON STAINLESS STEEL DUMP WITH ELECTRIC ACTUATOR - REAR

The rear of the water tank shall be equipped with a 10" Newton Stainless Steel Dump Valve, model #1080-34. 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.

NEWTON STAINLESS STEEL 18" ELECTRIC TELESCOPING CHUTE - REAR

The rear Newton Dump shall be equipped with a Newton Model #5018-34, 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 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 multiplexed switch from inside the cab. The switch shall be located in an area near the driver and shall be a backlit style switch.

The switch shall be interlocked with a master dump power switch located in the same switch console. The master dump power switch shall provide power to all dumps switching inside the cab. This setup is designed to prevent accidental activation of a dump from inside the cab.

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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.

REAR CHUTE SWITCHING - IN CAB

The rear chute shall be switched by a momentary style multiplexed switch from inside the cab. The switch shall be located adjacent to the respective dump switch.

The switch shall be interlocked with a master dump power switch located in the same switch console. The master dump power switch shall provide power to all dumps switching inside the cab.

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

The driver side of the water tank shall be equipped with a 10" Newton Stainless Steel Dump Valve, Model #1080-34. 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.

NEWTON STAINLESS STEEL 18" ELECTRIC TELESCOPING CHUTE - DRIVER SIDE

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

A 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's side dump shall be switched by a momentary style multiplexed switch from inside the cab. The switch shall be located in an area near the driver and shall be a backlit style switch.

The switch shall be interlocked with a master dump power switch located in the same switch console. The master dump power switch shall provide power to all dumps switching inside the cab. This setup is designed to prevent accidental activation of a dump from inside the cab.

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.

DRIVER SIDE CHUTE SWITCHING - IN CAB

The driver's side chute shall be switched by a momentary style multiplexed switch from inside the cab. The switch shall be located adjacent to the respective dump switch.

The switch shall be interlocked with a master dump power switch located in the same switch console. The master dump power switch shall provide power to all dump switching inside the cab.

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

The officer side of the water tank shall be equipped with a 10" Newton Stainless Steel Dump Valve, Model #1085-34. 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.

NEWTON STAINLESS STEEL 18" ELECTRIC TELESCOPING CHUTE - OFFICER SIDE

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

A 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 DUMP SWITCHING - IN CAB

The officer's side dump shall be switched by a momentary style multiplexed switch from inside the cab. The switch shall be located in an area near the driver and shall be a backlit style switch.

The switch shall be interlocked with a master dump power switch located in the same switch console. The master dump power switch shall provide power to all dumps switching inside the cab, this setup is designed to prevent accidental activation of a dump from inside the cab.

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.

OFFICER SIDE CHUTE SWITCHING - IN CAB

The officer's side chute shall be switched by a momentary style multiplexed switch from inside the cab. The switch shall be located adjacent to the respective dump switch.

The switch shall be interlocked with a master dump power switch located in the same switch console. The master dump power switch shall provide power to all dump switching inside the cab.

DIRECT TANK FILL - DRIVER SIDE

One (1) 5" Storz 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 2-1/2" Fireman's Friend (TTMA 6-bolt attachment pattern) check-type fill valve. The fill valve shall be capable of flowing at a rate in excess of 1,000 gallons per minute and shall be of a self deflecting design, requiring no additional diffusion device. The fill valve shall be constructed of stainless steel, with a spring actuated piston-type sealing mechanism to minimize seal wear and provide positive sealing of the valve. The fill shall be equipped with a 30 degree elbow terminating with a 5" Storz 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 is 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 may 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 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 ALCOA No Slip type. Upon request by the Hampstead Fire Department, the manufacturer shall supply proof of compliance with this requirement.

All vertical surfaces on the body, which incorporate aluminum tread plate material, shall utilize the same material pattern to provide a consistent overall appearance.

DRIVERS SIDE COMPARTMENTATION

One (1) low side compartment, with a rollup door, behind the rear wheels. Compartment dimensions approximately 36" High x 49" Wide, with a door opening of approximately 32" High x 46" Wide.

One (1) low side compartment, with a rollup door, forward the rear wheels. Compartment dimensions approximately 36" High x 55" Wide, with a door opening of approximately 32" High x 52" Wide.

One (1) high side storage compartment, with three (3) rollup doors. Compartment dimensions approximately 36" High x 213" Wide, three (3) side door openings, each approximately 32" High x 67" Wide.

OFFICERS SIDE COMPARTMENTATION

One (1) low side compartment, with a rollup door, behind the rear wheels. Compartment dimensions approximately 36" High x 49" Wide, with a door opening of approximately 32" High x 46" Wide.

One (1) low side compartment, with a rollup door, forward of the rear wheels. Compartment dimensions approximately 36" High x 55" Wide, with a door opening of approximately 32" High x 52" Wide.

ROLL-UP DOORS

Roll-up doors shall be provided on all compartments. The roll-up doors 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.

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

All running board and high side compartments shall be equipped with roll-up doors.

ROBINSON ROLL-UP DOORS

The roll-up doors shall be Robinson (ROM) brand roll-up doors, equipped with a brushed aluminum finish, with a PVC inner seal to prevent metal to metal contact and to repel moisture. The slats shall be double-wall extrusion 1.366" high by .315" thick with interlocking end shoes to prevent the slats from moving side-to-side and binding the door. All slats are to have interlocking joints to prevent penetration by sharp objects.

SWEEP-OUT COMPARTMENT FLOORS

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

Compartment with hinged doors shall have the door opening flanges bend down to produce the sweep-out design.

Compartment with roll-up style doors 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.

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. Screw heads shall be coated with a sealing element to prevent galvanic corrosion between dissimilar metals. Non-coated screws shall only be provided as part of vendor supplied component installations.

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 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 be fabricated from a minimum of 3/16" polished aluminum tread plate and 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.

REAR STANCHIONS - CAST ALUMINUM

Two (2) Cast Products model #LB0029-1, polished stanchion brackets with wiring protectors, shall be provided at the rear of the body for upper rear warning light mounting, one (1) each side. These brackets shall be bolted to the sides of the body to minimize rear vehicle height.

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 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 STEP

The rear step shall be twelve (12) inches deep, recessed between the rear portion of the rear side compartments. The step shall be fabricated from 3/16" polished aluminum tread plate, and shall be rigidly reinforced. The recessed design of the rear step shall reduce the rear side compartment depth at the rear 9 inch wide area to 12" deep with a 76" wide rear step.

The rear edge of the step shall be designed to accommodate the rear clearance lights, recessed for protection in the step reinforcement channel. This step shall be bolted into place with a minimum 1/2" clearance gap between it and the body panel.

INTERMEDIATE REAR STEP

An eight (8) inch deep, bolt on intermediate rear step, fabricated from 3/16" aluminum tread plate, shall be installed. The step shall be approximately 8" deep x 48" wide.

GRAB RAILS

All hand rails shall be 1-1/4" outer diameter, knurled bright anodized aluminum extrusion, 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:

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

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

FOLDING STEPS - REAR OF BODY

Four (4) Austin Hardware model FS-200 CHR (or equal) large folding steps, made of high strength die cast aluminum, with a textured chrome plate finish, minimum of 42 in² surface, conforming to NFPA-1901 requirements, shall be provided on the rear of the body, two (2) each side. The steps shall be mounted to accommodate access to the body hose bed area with a maximum of 18" height between each step.

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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 rear fenders shall be equipped with easily replaceable, polished extruded aluminum fenderettes. The fenderettes shall be equipped with a rubber gasket molding between the body panel and the fenderette.

AIR BOTTLE STORAGE COMPARTMENTS

A total of four (4) SCBA air bottle storage compartments (8" high x 8" wide x 26" deep) shall be inserted into the body fender area on a 5 degree pitch. The compartments shall be located with two (2) on the driver side and two (2) on the officer side of the rear body fender panels. The lower portion of the compartments shall be non-abrasive to absorb shock and help secure the bottle.

Each storage compartment shall be equipped with a polished stainless steel door.

REAR MUD FLAPS

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

REAR TOW EYES

Two (2) painted tow eyes shall be furnished on the rear of the vehicle, extending through the rear body panel. The tow eyes shall be made from plate steel and shall be bolted directly to the chassis frame rails with grade 8 bolts. 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.

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The hose bed storage area, shall have a minimum capacity of fifty (50) cubic feet, and shall accommodate 1000 feet of 5 inch large diameter hose as required by the Hampstead Fire Department. The hose bed depth shall be at least 12".

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.

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 channels located at the front and rear of the hose bed. Partition shall be removable for access to the booster tank.

VINYL HOSE BED COVER - 1/4 TURN FASTENERS

A hose bed cover shall be provided and installed. The cover shall be made from 22 ounce; heavy-duty vinyl coated polyester fabric (TXN 226). 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 quarter-turn fasteners. The cover shall be secured to the side body flanges with quarter-turn fasteners. 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.

HALF DEPTH 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.

Half depth adjustable shelves shall be located as follows:

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Three (3) half depth adjustable shelves shall be provided and mounted as directed by the Hampstead Fire Department.

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:

Four (4) adjustable shelves shall be provided and mounted as directed by the Hampstead Fire Department.

PORTABLE TANK STORAGE SYSTEM

A Zico PTS-30-7 + PTS-TCH-30 "Quic-Lift" Portable Tank System shall be provided on the officer side body compartment cap. The unit shall consist of two (2) high-strength aluminum casting sets and Warner 12-volt linear actuators, capable of storing a 30" high portable tank. The system shall be installed to accommodate the folding tank. Switching shall be located on the officer side pump panel in an enclosed housing, with an audible and visual alarm installed on the officer side rear body panel.

The specified portable tank storage system shall be designed to carry a 3000 gallon portable water tank with approximate dimensions of 159" Long x 7" Wide x 29" Tall.

Note: If Hampstead Fire Department supplied water tank exceeds these dimensions the Hampstead Fire Department must provide tank dimensions so the tank rack can be sized properly.

FOLDING TANK ENCLOSURE

The above specified portable tank storage shall be enclosed on the front, rear, top, and outboard side. The top and outboard side shall be 1/8" polished aluminum tread plate. Two (2) retaining straps shall be installed on the inside of the enclosure to secure the tank inside the rack and prevent the tank from contacting the side of the body or elliptical tank.

LADDER STORAGE

The ground ladders shall be stored horizontally within a sleeve in the water tank.

LADDER CLARIFICATION

The NFPA-1901 required ground ladders shall not be furnished with the completed unit. These items are not to be provided by the manufacturer at the request of the Hampstead Fire Department.

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SUCTION HOSE STORAGE

The suction hoses shall be located under the water tank one (1) on the driver side and one (1) on the officer side of the apparatus.

LOOSE EQUIPMENT

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

SUCTION HOSE

Two (2) 10 foot sections of six (6) inch PVC lightweight suction hose shall be furnished (Kochek or Firequip Maxi-Flex). Suction hose shall be for suction only and not to be used on pressurized hydrants or for relay pumping. Couplings shall include a long handle, female swivel on one end and a rocker lug male on the other end. All threads shall be six (6) inch N.S.T.

STRAINER

One (1) 6" NST barrel type strainer shall be provided to attach to the suction hose. A compartment mounting bracket shall also be provided to store the strainer when not in use.

HYDRANT ADAPTER

A double female swivel hydrant adapter shall be provided along with a screw base mounting bracket. One end shall attach to the suction hose and the other end to be 4-1/2" N.S.T. thread.

ADDITIONAL ITEMS SUPPLIED WITH THE VEHICLE

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

WHEEL CHOCKS

Two (2) ZICO #SAC-44 folding wheel chocks shall be mounted forward of the rear wheels on the driver side below the side running board compartments.

NFPA REQUIRED LOOSE EQUIPMENT, PROVIDED BY HAMPSTEAD FIRE DEPARTMENT

The following loose equipment as outlined in NFPA 1901, 2009 edition in accordance with the applicable requirements, shall be provided by the Hampstead Fire Department unless specifically required to be furnished by the bidder in this specification. All loose equipment shall be installed on the apparatus before placed in emergency service, unless the Hampstead Fire Department waives NFPA section 4.21.

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Section 7.6 Suction Hose or Supply Hose.

It is the responsibility of the Hampstead Fire Department to ensure that all required equipment has been supplied and installed on the apparatus in order to achieve compliance with the standard prior to placing it in service.

7.6.1 A minimum of 20 ft (6 m) of suction hose or 15 ft (4.5 m) of supply hose shall be carried.

7.6.1.1 Where suction hose is provided, a suction strainer shall be furnished.

7.6.1.2 Where suction hose is provided, the friction and entrance loss of the combination suction hose and strainer shall not exceed the losses listed in Table 16.2.4.1 (b) or Table 16.2.4.1(c).

7.6.1.3 Where supply hose is provided. It shall have couplings compatible with the local hydrant outlet connection on one end and the pump intake connection on the other end.

7.6.2 Suction hose and supply hose shall meet the requirements of NFPA 1961, Standard on Fire Hose.

Section 7.7 Minor Equipment.

7.7.2.1 The mobile water supply apparatus shall be equipped with at least 200 fl (60 m) of 2 1/2 in. (65 mm) or larger fire hose.

7.7.2.2 If the mobile water supply apparatus is equipped with a fire pump, the following shall be provided:

(1) 400 ft (120m) of 1 1/2 (38mm), 1 3/4 in. (45mm), or 2 in.(52mm) fire hose

(2) Two handline nozzles, 95 gpm (360 L/min) minimum. It is the responsibility of the Hampstead Fire Department to ensure that all required equipment has been supplied and installed on the apparatus in order to achieve compliance with the standard prior to placing it in service.

7.7.3 Miscellaneous Equipment. The following additional equipment shall be carried on the apparatus:

(1) One 6 lb (2.7 kg) flathead axe mounted in a bracket fastened to the apparatus

(2) One 6 lb (2.7 kg) pickhead axe mounted in a bracket fastened to the apparatus

(3) Two portable hand lights mounted in brackets fastened to the apparatus

(4) One approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus

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- (5) One 2 1/2 gal (9.5 L) or larger water extinguisher mounted in a bracket fastened to the apparatus
- (6) One self-contained breathing apparatus (SCBA) complying with NFPA 1981, Standard on Open-Circuit Self Contained Breathing Apparatus (SCBA) for Emergency Services, for each assigned seating position. But not fewer than four, mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer
- (7) One spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space
- (8) One first aid kit
- (9) Two combination spanner wrenches mounted in brackets fastened to the apparatus
- (10) One hydrant wrench mounted in brackets fastened to the apparatus
- (11) One double female 2 1/2 in. (65 mm) adapter with National Hose (NH) threads, mounted in a bracket fastened to the apparatus
- (12) One double male 2 1/2 in. (65 mm) adapter with NH threads, mounted in a bracket fastened to the apparatus
- (13) Two or more wheel chocks. Mounted in readily accessible locations, that together shall hold the apparatus. When loaded to its GVWR or GCWR, on a hard surface with a 20 percent grade with the transmission in neutral and the parking brake released
- (14) One traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, Standard for High-Visibility Public Safety Vests, and have a five-point breakaway feature that includes two at the shoulders, two at the sides, and one at the front
- (15) Five fluorescent. orange traffic cones not less than 28 in. (711 mm) in height, each equipped with a 6 in. (152 mm) retroflective white band no more than 4 in. (102 mm) from the top of the cone, and an additional 4 in. (102 mm) retroflective white band 2 in. (51 mm) below the 6 in. (152 mm) band
- (16) Five illuminated warning devices such as highway flares, unless the live fluorescent orange traffic cones have illuminating capabilities
- (17) One automatic external defibrillator (AED)

7.7.3.2 If the mobile water supply apparatus is equipped with a fire pump and none of the intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side shall be carried. Any intake connection larger than 3 in. (75 mm) shall include a pressure relief device that meets the requirements of 16.6.6.

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7.7.3.3 If the mobile water supply apparatus is equipped with a fire pump, a rubber mallet, for use on suction hose connections shall be carried in a bracket fastened to the apparatus.

7.7.3.4 If the apparatus does not have a 2 1/2 in. intake with NH threads, an adapter from 2 1/2 in. NH female to a pump intake shall be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake.

7.7.3.5 If the supply hose carried has other than 2 1/2 in. NH threads, adapters shall be carried to allow feeding the supply hose from a 2 1/2 in. NH thread male discharge and to allow the hose to connect to a 2 1/2 in. NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.

14.1.8.4 Fire Helmet.

It is the responsibility of the Hampstead Fire Department to ensure that "Fire helmets shall not be worn by persons riding in enclosed driving and crew areas any time the apparatus is placed in service.

14.1.8.4.1 A location for helmet storage shall be provided.

14.1.8.4.2 If helmets are to be stored in the driving or crew compartment, the helmets shall be secured in compliance with 14.1.11.2.

14.1.10 SCBA Mounting.

It is the responsibility of the Hampstead Fire Department to ensure that any SCBA equipment has been supplied and installed on the apparatus in order to achieve compliance with the standard prior to placing it in service.

14.1.10.1 Where SCBA units are mounted within a driving or crew compartment, a positive latching mechanical means of holding the SCBA device in its stowed position shall be provided such that the SCBA unit cannot be retained in the mount unless the positive latch is engaged.

14.1.10.2 The bracket holding device and its mounting shall retain the SCBA unit when subjected to a 9 G force and shall be installed in accordance with the bracket manufacturer's requirements.

14.1.10.3 If the SCBA unit is mounted in a seatback, the release mechanism shall be accessible to the user while seated.

14.1.11 Equipment Mounting.

It is the responsibility of the Hampstead Fire Department to ensure that any equipment installed on the apparatus by them or their subcontractor meets the following requirements prior to placing it in service.

Specification for: HAMPSTEAD FIRE DEPARTMENT

14.1.11.1 All equipment required to be used during an emergency response shall be securely fastened.

14.1.11.2 All equipment not required to be used during an emergency response, with the exception of SCBA units, shall not be mounted in a driving or crew area unless it is contained in a fully enclosed and latched compartment capable of containing the contents when a 9 G force is applied in the longitudinal axis of the vehicle or a 9G force is applied in any other direction, or the equipment is mounted in a bracket(s) that can contain the equipment when the equipment is subjected to those same forces.

Section 15.9.3 Reflective Striping.

It is the responsibility of the Hampstead Fire Department to ensure that Reflective Striping has been supplied and installed on the apparatus in order to achieve compliance with the standard prior to placing it in service.

15.9.3.1" A retroreflective stripe(s) shall be affixed to at least 50 percent of the cab and body length on each side, excluding the pump panel areas, and at least 25 percent of the width of the front of the apparatus.

15.9.3.1.1 The stripe or combination of stripes shall be a minimum of 4 in. (100 mm) in total width.

15.9.3.1.2 The 4 in. (100 mm) wide stripe or combination of stripes shall be permitted to be interrupted by objects (i.e., receptacles, cracks between slats in roll up doors) provided the full stripe is seen as conspicuous when approaching the apparatus.

15.10 Hose Storage.

It is the responsibility of the Hampstead Fire Department to ensure that any hose storage area includes a positive means to prevent unintentional deployment in order to achieve compliance with the standard prior to placing it in service.

15.10.7 Any hose storage area shall be equipped with a positive means to prevent unintentional deployment of the hose from the top, sides, front, and rear of the hose storage area while the apparatus is underway in normal operations.

PAINT, PREPARATION AND FINISH

The PPG Delta, 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.

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. The body paint finish shall be PPG Delta System in a single color, to match Hampstead Fire Department furnished paint codes and requirements. The body paint finish shall be PPG Delta System in a single color, to match Hampstead Fire Department furnished paint codes and requirements.

COMPARTMENT PAINT

The interior of the compartments shall be finish painted job color with a scuff resistant webbing type paint of a contrasting color applied over the painted surfaces.

PUMP / PIPING PAINT

The pump enclosure and pump/plumbing within the pump enclosure shall be painted black.

CHASSIS CAB PAINT

The commercial cab exterior shall be finish painted in a two tone color scheme by the chassis manufacturer with Hampstead Fire Department's choice of colors as available.

WHEEL PAINT

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.

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 Hampstead 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 Hampstead Fire Department.

FRONT CAB DOOR LETTERING

Scotch-Cal without drop shadow lettering shall be provided on the cab driver's and officer's doors per the Hampstead 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.

REAR BODY LETTERING

Scotch-Cal without drop shadow lettering shall be provided on the rear body panel per the Hampstead Fire Department requirements. The design of the lettering on the rear of the body shall be designed to fit in the 167 sq. inches available.

Lettering provided on the rear body panel shall be 3" high.

BODY SIDE SHEET LETTERING

Scotch-Cal without drop shadow lettering shall be provided on the body side sheet per the Hampstead 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.

Specification for: HAMPSTEAD FIRE DEPARTMENT

LETTERING FONT

The lettering shall be designed and cut with a design that matches current Hampstead apparatus.

SCOTCH-LITE STRIPE

A four (4) inch high "Scotch-Lite" 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 Scotch-Lite stripe layout shall be determined by the Hampstead Fire Department.

The Scotch-Lite shall be white in color.

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 Scotch-Lite.

The Diamond Grade Scotch-Lite shall be Red #983-72 and Fluorescent Yellow Green #983-23 in color.

NAVISTAR/INTERNATIONAL 7600 SERIES WARRANTY

DISCLAIMER

NO WARRANTIES ARE GIVEN BEYOND THOSE DESCRIBED HEREIN. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. THE COMPANY SPECIFICALLY DISCLAIMS WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OTHER REPRESENTATIONS TO THE USER/HAMPSTEAD FIRE DEPARTMENT, AND ALL OTHER OBLIGATIONS OR LIABILITIES. THE COMPANY FURTHER EXCLUDES LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES ON THE PART OF THE COMPANY OR SELLER.

No person is authorized to give any other warranties or to assume any liabilities on the Company's behalf unless made or assumed in writing by the Company; and no other person is authorized to give any warranties or to assume any liabilities on the seller's behalf unless made or assumed in writing by the seller.

Remedies under State or Provincial Law: Some States and Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to the owner. This warranty gives the owner specific legal rights, and he may also have other legal rights which may vary by state or province.

BASIC NAVISTAR VEHICLE

Navistar, Inc., at its option, shall repair or replace any part of this vehicle which proves defective in material and/or workmanship in normal use and service, with new or renewed parts, for the first 12 months from new vehicle delivery date, regardless of distance traveled. Exceptions are listed below under What Is Not Covered. This warranty is automatically transferred to subsequent owners at no charge. Visit your local International Dealer for name and address change information.

NAVISTAR COMPONENT COVERAGE

The components described below are given additional warranty coverage of variable time periods and distance traveled limitations, as shown in the Warranty Coverage Schedule.

- Frame Side Rails.
- Cab/Cowl Structure (on-highway applications).
- The Cab/Cowl is warranted against perforation due to corrosion, except for perforation caused by chemicals and/or corrosion caused by use in a corrosive environment.
- Navistar Diesel Engines including: block, cylinder heads, fuel pump, high pressure pump, turbocharger, internally lubricated components, and water pump; electronic modules, relays, sensors and regulators required for electronic engine operation. Injectors/nozzles are covered for 24 months/150,000 miles (240,000 Km). Excluded are attaching accessories (e.g., fan clutch, alternator, starter, etc.), thermostats, and externally mounted electrical and filtration systems.
- Main Transmission (except Allison), Auxiliary Transmission, and Transfer Case Assemblies.
- Rear axles, Differential(s), and Housing(s). Excluded are brakes, wheel ends, axle shafts, controls & attachments.
- Front Axle Assembly, including I-beam, kingpins, bushings, and spindles. Excluded are brakes and wheel ends.
- Major Drivetrain components -on-highway applications. (Refer to supplier information).

Note: The Hampstead Fire Department has 180 days from DTU (delivery to end user) to purchase any extended warranty on the unit. See your local International dealer for details.

NAVISTAR BASIC VEHICLE COVERAGE PERIOD

- Basic Vehicle Warranty (40011) - 12 month, Unlimited Miles

COMPONENTS

- Frame Side Rails - 60 month, Unlimited Miles
- Frame Side Rails (7500 ONLY) - 84 month, Unlimited Miles
- Cab/Cowl Structure - 60 month, Unlimited Miles
- Cab/Cowl Perforation Corrosion - 60 month, Unlimited Miles
- Brightwork, Chassis Paint and Corrosion (other than cab) - 6 months Unlimited Miles
- Hood/Cab Paint - 12 months, Unlimited Miles

Specification for: HAMPSTEAD FIRE DEPARTMENT

ENGINE

- MaxxFace 10 - 36 month, 300,000 Miles
- MaxxFace 10 Injection Nozzles - 24 month, 150,000 Miles
- MaxxFace 11/13/15 - 24 month, unlimited miles
- MaxxFace 11/13/15 Injection Nozzles - 24 month, 150,000 Miles
- MaxxFace 11/13/15 Major Components - 60 month, 500,000 miles

DRIVETRAIN

Rear Axle Weight Ratings greater than 52,000-lb and less

- Front Axle Assembly - 36 month, Unlimited Miles
- Rear Axle and Differential - 36 month, Unlimited Miles
- Transmission - 36 month, Unlimited Miles

DRIVETRAIN COMPONENTS-AS WARRANTED BY SUPPLIERS (On Highway Tractors Only-Reference Supplier Information)*

The drive train Supplier may offer additional warranty coverage beyond 36 months, unlimited miles as a part of their standard warranty. For information regarding additional supplier coverage's, please refer to specific policies from supplier warranty statements. You may acquire these materials from the supplier direct or your local International Dealer.

NOTE: Any failures resulting from improper Allied Equipment installation or Equipment compatibility with the Truck components shall be the responsibility of the Equipment installer or manufacture

WHAT IS NOT COVERED

AFTER THE FIRST 90 DAYS FROM DELIVERY TO USER (DTU):

- Correction of loose fasteners, squeaks, rattles and unusual noises.
- Towing.
- Adjustments (e.g., headlights, brake/clutch adjustments, steering system adjustments, coolant levels).

COMPONENTS / ITEMS:

- Warranted by their respective manufacturers (e.g., non Navistar brand engines, tires & tubes, Allison Transmissions, radios, Lubricants, etc.)
- Bodies, equipment and accessories installed by other than authorized Navistar, Inc. employees at Navistar, Inc. Truck manufacturing plants.
- Front and rear axle alignment.

Specification for: HAMPSTEAD FIRE DEPARTMENT

REPAIRS:

- Maintenance-related items/repairs or those as a result of normal wear and tear, including tune-ups, brake/clutch lining, windshield wiper blades, tire balancing, lubrication and other similar procedures/parts required to keep vehicle in good working condition.
- To any part of the vehicle subjected to misuse, negligence, improper maintenance, improper operation, or which is the result of an accident.
- Fade, runs, mismatch or damage to paint, trim items, upholstery, chrome, polished surfaces, etc., resulting from environmental causes, improper polishes, cleaners or washing solutions, or chemical and industrial fallout.
- In which all owners and operators of this vehicle do not strictly adhere to power train, prop shaft and suspension sales guidelines (specifications).
- Replacement of defective parts with parts other than those provided by Navistar, Inc.

OTHER:

- Vehicles sold and/or operated outside the United States and Canada.
- Vehicles/components which have had unauthorized alterations or modifications.
- Vehicles on which the odometer reading has been altered.
- Loss of time or use of the vehicle, loss of profits, inconvenience, or other consequential or incidental damages or expenses.
- Replacement of defective parts with parts other than those provided by Navistar, Inc.

NEW PRODUCT - COMMERCIAL CHASSIS

The bidder hereby warrants to the original Hampstead Fire Department (first end users) that any new products shall be free from defects in material and workmanship under normal use, maintenance and service for a period of one (1) year from date of delivery, subject to the conditions and exceptions stated herein.

Under this warranty, the manufacturer's obligation is limited to the repair or replacement at their option, at its factory, by its representative, or by its authorized service facility, of any part found to be defective by the manufacturer. If the manufacturer deems it necessary, all parts for which warranty claim is made, shall be returned to the manufacturer, transportation charges prepaid, for examination by the manufacture, who shall be the sole judge as to whether such part was defective in material or workmanship under normal use, maintenance or service.

BODY STRUCTURE

The body shall 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.

CORROSION

The body shall 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.

PAINT

The paint finish shall 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.

STAINLESS STEEL PLUMBING WARRANTY

The stainless steel plumbing shall 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.

WATER TANK

The water tank shall be 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.

FIRE PUMP

Hale Products, Incorporated ("Hale") shall warrant products manufactured by Hale to be free of defects in material and workmanship for a period of five (5) years from the date product is first placed into service or five and one-half (5 1/2) years from date of shipment by Hale, whichever period shall be first to expire. Within this warranty period Hale shall cover parts and labor for the first two (2) years and parts only for years three (3) through five (5).

WARRANTY RELATED APPARATUS TRANSPORT

Should **any** warranty repair require transportation of the apparatus to a repair facility outside the Department's city limits, the manufacturer shall provide a pickup and delivery service at no charge to the Hampstead Fire Department.

HEAVY DUTY VALVES

Akron Brass warrants Heavy Duty Swing-Out Valves for a period of ten (10) years after purchase against defects in material or workmanship. Akron Brass shall repair or replace any Heavy Duty Swing Out Valve which fails to satisfy this warranty.



Town of Hampstead, New Hampshire

Request for Proposal

ATTACHMENT A

New Fire Department Tanker/Tender Quote Submission Form

PLEASE DETACH AND SUBMIT WITH PROPOSAL.

In accordance with the specifications, the undersigned hereby submits the following bid:

Cost to Town (No trade in) \$ _____

Optional: Trade-In Value: 1985 E-One Tanker \$ _____

Submitted For (Vendor Name):

Submitted By:

Name: _____

Name: _____

Address: _____

Title: _____

Phone: _____

Trade-in vehicle: "as-in condition", vehicle only, no equipment.



Town of Hampstead, New Hampshire

Request for Proposal

ATTACHMENT B

Town of Hampstead
Proposal Criteria

“3000 Gallon Fire Department Water Tanker/Tender”

Please submit a vehicle that closely meets the Requested Criteria

Requested Criteria

The Hampstead Fire Department is interested in obtaining a 3000 Gallon Fire Tanker type apparatus that has the features listed on this page.

It is the intent of the Hampstead Fire Department to obtain a vehicle that most closely meets its requirements and has the best price. The truck must meet the latest edition of all applicable NFPA specifications. Quote submittals should include a print and a full set of specifications for the truck as well as any other information on the apparatus or that the manufacturer would feel to be useful to the Department in its evaluation of the apparatus.

A list of customers and photographs of other similar apparatus would be helpful. The delivery time must meet the requirements of the Department. The Hampstead Fire Department reserves the right to choose the apparatus that best serves the needs of the Town.

Requested Criteria:

The following items shall be considered the minimum specifications for the Hampstead Fire Department tanker. The tanker shall meet the NFPA 1901 2009 edition Chapter 7 standards. Overall length of the truck should not exceed 34’ (shorter is better). The truck must be delivered prior to March 1, 2013.

1. Cab and chassis:

Two door International 7600 commercial cab with two seats.

The cab shall have a shoreline charger connection, an exterior air supply connection under the cab door.

The truck shall have an internal 120 volt in-cab receptacle and one in the left front compartment.

The minimum engine shall be at least 450 HP and matched to an Allison transmission.

Specification for: HAMPSTEAD FIRE DEPARTMENT

The engine shall have a Jacobs brake.

The truck shall have a 20,000 lb front axle and a 46,000 tandem rear axle with differential locks and front to rear axle power transfer switch.

Aluminum tread plate covering the entire fuel tank and battery box.

The tire shall have Michelin tires on all wheels with steel rims with chrome caps and nuts.

The truck shall have a 320 AMP Leece Neville alternator.

2. The pump shall be a HALE DSD- 750 G.P.M. single stage pump.

It shall have two 6" NSTM inlets equipped with 5" gated Storz incoming relief valves. The pump inlets shall be off-set from the pump panel to permit the easy removal of the valves.

The pump shall have at least two 2.5" valved discharges and on the curb side of the vehicle a valved 3" x 5" Storz discharge with cap.

All 2.5" discharges shall have 2.5" NST to 1.5" NST reducing caps.

3. The water tank shall be a UPF polypropylene 3000 gallon capacity tank. It shall be equipped two side and one rear remote actuated dump valves with extensions.

The remote controls shall be at the rear of the truck and in the cab.

The pump to tank valve shall be 3".

There shall be a rear direct tank fill valve with a 2.5" x 5" Storz adapter with a cap. This valve shall be mounted not more than 42" above ground level.

There shall be one rear 2.5" discharge, driver's side.

An oversize five color water level indicator light shall be mounted on top of the front of each side of the truck and at the rear.

The cab shall have a tank level indicator.

4. The truck shall have the following features:

Two preconnected 200' capacity 1.75" crosslay hose-beds.

Preconnected 250' capacity 2.5" crosslay hosebed.

200' 5" LDH crosslay hosebed.

Specification for: HAMPSTEAD FIRE DEPARTMENT

Rear facing 1000' capacity 5" LDH hosebed with at least one divider.

Pre-piped demountable Elkhart Stinger monitor equipped with stacked tips and a 5" Storz inlet ground base. The monitor shall have at least a 180 degree horizontal range of operation. Provisions shall be in place to permit a Firefighter to operate the monitor on the truck (a place to stand).

The rear hose bed shall have two adjustable hose bed dividers.

5. The truck shall have two 10' lengths of Kochek lite-weight suction hose. Internal storage preferred. A Kochek floating strainer shall be supplied with the truck.
6. The truck body shall be aluminum or stainless steel and have roll up compartment doors.

The doors are to be unpainted.

The truck shall have low side compartments on the curb side with an electric Fold-a-Tank rack The Fold-a-tank will be supplied by Hampstead.

The truck shall have high side compartments on the driver's side.

The truck shall have internal ladder storage for a 24" extension ladder, a 14' roof ladder and a 10' folding ladder. The ladders shall be supplied by Hampstead Fire Department.

The compartments shall have internal full height LED lighting.

The truck shall have four SCBA tank holder compartments shall be mounted in the fenders.

7. The truck shall be equipped with 12 volt LED flush mounted angled scene lights. There shall be one forward facing on the cab and two on top of each side of the body and two mounted on the rear of the truck.

The truck shall have a remote control Go-light spotlight on the cab roof.

The truck shall have a LED NFPA compliant warning light package.

8. The truck shall have a Federal Q siren. The warning light package shall include a traffic pre-emption emitter device. The siren will be recessed into the bumper.

The air horns shall be recessed into the bumper.

9. The truck shall be painted, lettered and striped to match Hampstead Ladder 1. The colors shall be FLNA4145 Black applied to the upper section of the cab and the apparatus body shall be painted FLNA3225 Red.

Specification for: HAMPSTEAD FIRE DEPARTMENT

- 10.** Provisions shall be made to mount all loose equipment and radios required by the department and the Standard. The mounting shall include two portable flashlights with power, two portable radio chargers and one mobile radio with antenna.

The cab shall have three 12 volt power leads and two cigar lighter receptacles.

Each compartment shall have a 12 volt power lead.