

CITY OF MUSKEGON HEIGHTS Fire Department



INVITATION TO SUBMIT PROPOSAL

Proposals will be received by the City of Muskegon Heights, 2724 Peck Street, Muskegon Heights, MI 49444 until 2:00 PM, Eastern Time, on Tuesday, March 18, 2022, for a Fire Apparatus to be used by the Muskegon Heights Fire Department. Faxed proposals will not be accepted. Request for Proposal documents are on file and may be obtained at the Muskegon Heights Fire Department, 2715 Baker, Muskegon Heights, Michigan.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

REQUEST FOR PROPOSALS FOR SUPPLY OF ONE (1) MINI PUMPER 4X4CREW CAB

INFORMATION TO BIDDERS

The City will only consider bids with a subject line clearly marked:

"MHFD-RFP-2022-1 MINI PUMPER CREW CAB"

Submissions shall be emailed, prior to the Submission Deadline, to

Fire Chief Christopher Dean

chris.dean@mcd911.net

Until March 18, 2022 2:00PM EST for the purchase of one (1) Mini Pumper Crew Cab, as per the specifications.

Submissions will be opened/tabulated immediately at 2:00 PM local time on March 18, 2022.

The supplier must state the time of delivery for the complete truck. Muskegon Heights Fire Department is looking to have the truck delivered within **45 to 120 days of the closing date**. Muskegon Heights Fire Department is to be advised immediately of any necessary change in the stated delivery time. In addition, the bidder must submit relevant manufacturer's literature on the equipment with the proposal.

The lowest, or any proposal, will not necessarily be accepted.

Note: The City anticipates that stock and demo apparatus will result in limitations to available customizations due to the narrow delivery time frame.

Retain one set of documents for your records.

Christopher J. Dean

Fire Chief Muskegon Heights Fire Department

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

BID Sheet MHFD-RFP-2022-1

Bid Certification (Page 1 of Bid Document)

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies, equipment or service, that it meets or exceeds all specifications contained herein, and is in all respects fair and without collusion or fraud. I understand collusive bidding violates state and federal law and can result in fines, prison sentence, and civil damage awards. I agree to abide by all conditions of this bid, all specifications as stated and certify that I am authorized to sign for the bidder.

I, the undersigned, agree to supply and deliver to the City of Muskegon Heights, not later than the time stated, the equipment as set out below for the following price:

1. One – **MINI PUMPER 4X4 CREW CAB** Fire apparatus as per specifications.

Make	
Model	
Year	
Estimated Delivery Date	
Total Price Delivered	\$
Optional / Extras (installed price)	
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$

Truck will be delivered within _____ days maximum after order is placed.

Bidder	
Street Address	
City, State, Zip	
Phone Number	
Fax	
Email	
Signature	
Title	
Certification Date	

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

Conflict of Interest Disclosure Form (Page 2 of Bid Document)

For purposes of determining any possible conflict of interest, all bidders/proposers, must disclose if any City of Muskegon Heights or County of Muskegon employee(s), elected official(s), or if any of its agencies is also an owner, corporate officer, agency, employee, etc., of their business.

Indicate either "yes" (a city employee or county, elected official, or employee also associated with your business), or "no." If yes, give person(s) name(s) and position(s) with your business.

NO _____

YES _____

NAME(S)

POSITION(S)

FIRM NAME:

BY (PRINTED):

BY (SIGNATURE):

TITLE:

ADDRESS:

PHONE NO.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

CERTIFICATION REGARDING

DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

(Page 3 of Bid Document)

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988, *Federal Register* (pages 19160-19211).

Bidder certifies to the best of its knowledge and belief that it and its principles:

(a) Are are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have have not within a three-year period preceding the award of this bid been convicted of or had a civil judgment rendered against them for the commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) Are are not presently indicted for or otherwise criminally charged by a governmental entity (Federal, State or Local) with the commission of any of the offenses enumerated in paragraph (b) above; and

(d) Have have not within a three-year period preceding bid had one or more public transactions (Federal, State or Local) terminated for cause or default.

Bidder Signature

Date

Typed or Printed

Company Name

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

QUESTIONS ABOUT AND CLARIFICATIONS OF THE REQUEST FOR PROPOSAL

All questions regarding this Request for Proposal (RFP) shall be submitted via email.. All questions shall be submitted on or before Tuesday, March 15, 2022, at 3:00 PM and shall be emailed to Chief Christopher Dean chris.dean@mcd911.net.

Schedule

RFP Issued and Advertised	March 04, 2022
Pre-Bid Meeting	March 10, 2022 via Zoom
Deadline for Proposals	March 18, 2022 2:00PM EST
Bid Opening	March 18, 2022 2:00PM EST (Immediately following deadline)
Bid Review	March 18, 2022 to March 23, 2022
Bids to Finance Committee	Week of March 20, 2022, TBA
Bids to City Council	March 24, 2022
Tentative Contract Award Date	March 28, 2022
Tentative Delivery Deadline	July 14, 2022

Zoom Information

Pre-Bid Meeting MHFD RFP

Mar 10, 2022 02:00 PM America/Detroit

Join Zoom Meeting

<https://us02web.zoom.us/j/88563915989?pwd=bk9hVTNMdy8wVzJidS9idE9CRnlLQT09>

Meeting ID: 885 6391 5989

Passcode: 900387

One tap mobile

+13017158592,,88563915989#,,,,*900387# US (Washington DC)

+13126266799,,88563915989#,,,,*900387# US (Chicago)

Dial by your location

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

+1 346 248 7799 US (Houston)

+1 669 900 6833 US (San Jose)

+1 929 205 6099 US (New York)

+1 253 215 8782 US (Tacoma)

Meeting ID: 885 6391 5989

Passcode: 900387

Find your local number: <https://us02web.zoom.us/u/ketgF7MX2r>

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

Information and Bidding Guidelines

SUBMISSION AND RECEIPT OF PROPOSAL

Proposals to receive consideration shall be received prior to the specified opening time as designated on the bid form. NO LATE PROPOSALS WILL BE ACCEPTED.

RESPONSIVE PROPOSALS

All pages and the information requested herein shall be furnished completely in compliance with instructions. The manner and format of submission is essential to permit prompt evaluation of all proposals on a fair and uniform basis. According, the City of Muskegon Heights reserves the right to declare as non-responsive and reject any incomplete proposal if material information requested is not furnished or where indirect or incomplete answers or information is provided. Likewise, alterations to the written requirements will negate any response.

INTERPRETATION OF PROPOSAL AND/OR CONTRACT DOCUMENTS

Any interpretation to a bidder regarding the Proposal and/or Contract Documents or any part thereof is valid only if given in writing by Fire Chief Christopher Dean of the City of Muskegon Heights Fire Department. Any information provided not in writing or by any other departmental contacts is unofficial. Interpretations may or may not be given orally (maybe written), dependent upon the nature of the inquiry. Interpretations that could affect other bidders will be in writing and issued by the Fire Department. All inquiries shall be made within a reasonable time prior to the stated deadline so that a written response in the form of an addendum if required, can be processed before bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

CHANGES AND ADDENDA TO PROPOSAL DOCUMENTS

Each change or addendum issued in relation to this proposal will be placed on the City of Muskegon Heights website and emailed to those attending the Pre-Bid Conference. It shall be the bidder's responsibility to inquire about the changes or addenda issued. All such modifications or addenda shall become part of the contract, and all bidders shall be bound by such changes or addenda

SPECIFICATIONS

Unless otherwise stated by the bidder, the proposal will be considered according to the City's applicable standard specifications and any special specifications outlined in the document. Reference to a particular trade name, manufacturer's catalog, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City, and should not be construed as excluding bids on other types of materials, equipment, and supplies unless otherwise stated. However, if awarded the contract, the bidder will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the proposal. The City reserves the right to determine if equipment/product or service being bid is equal to the specified equipment/product or service requested.

TAXES, TERMS, AND CONDITIONS

The City of Muskegon Heights is exempt from Federal Excise and State Sales Tax. General payment terms are Ten (10) days upon receipt of goods (unless otherwise stated below).

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

AWARD

The bid will be awarded to that responsible, responsive bidder whose proposal, conforming to this solicitation, will be most advantageous to the City, price, and factors considered. The City reserves the right to accept or reject any or all proposals, in part or whole, and to waive informalities and minor irregularities in bids received. Unless otherwise specified in the document, the City reserves the right to accept any item in the proposal on an individual basis. Bidders may submit proposals on any item or group of items provided unit prices are clearly shown and a notation is made on the document clearly indicating Bidder's intent.

WITHDRAWAL OF PROPOSAL

Proposals may be withdrawn in person by a bidder, or authorized representative provided their identity is made known, and a receipt is signed for the proposal, but only if the withdrawal is made prior to the stated proposal deadline. No proposal may be withdrawn for at least 30 days after the proposal opening except the successful company whose prices shall remain firm for the entire contract period. In case of error by the bidder in making up a proposal, the Fire Dept. staff may, by discretion, reject such a proposal upon presentation of a letter by the Bidder which sets forth the error, the cause thereof, and sufficient evidence to substantiate the claim.

DEFAULT CONDITIONS

In case of default by the contractor, the City of Muskegon Heights may procure the articles or services from other sources and hold the bidder responsible for any excess cost occasioned thereby. In case of error by the bidder relating to a contract, the Fire Dept. staff may, by discretion, upon presentation of a written explanation by the bidder substantiating the error, reject the contract and award to the next qualified bidder; such error may be subject to default conditions.

INFRINGEMENTS AND INDEMNIFICATIONS

The bidder, if awarded a contract, agrees to protect, defend and save the City, its officials, employees, departments and agents harmless against, any demand for payment for the use of any patented material, process, or device that may enter into the manufacture, construction, or from a part of the work covered by either order or contract; and from suits of a charge of every nature and description brought against it for, or on account of, any injuries or damages received or sustained by the parties by or from any of the facts of the contractor, the contractor's employees, or agents, from all liability claims, demands, judgments and expenses to persons or property occasioned, wholly, or in part, by the acts or omissions of the bidder, contractor, agents or employee.

PATENTS, COPYRIGHTS, ETC.

The Contractor shall release, indemnify and hold the Buyer, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or un-copyrighted composition, secret process, patented or unpatented invention, article, or appliance furnished or used in the performance of this contract.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

NON-COLLUSION

By signing the proposal, the bidder certifies that the proposal submitted has been arrived at independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the Request for Proposal, designed to limit independent bidding or competition.

CANCELLATION

Unless otherwise stated in the additional terms and conditions listed in the RFP, any contract entered into as a result of this bid may be canceled without cause by either party upon 30 days' notice, in writing, prior to the effective date of the cancellation. Cancellation may be in whole or in part. Any cancellation under this provision shall not affect the rights and obligations attending orders outstanding at the time of cancellation, including any right of any purchasing entity to indemnification by the contractor, rights of payment for goods/services delivered and accepted, and rights attending any warranty or default in performance in association with any order. Cancellation of the contract due to contractor default may be immediate.

DEFAULT AND REMEDIES

Any of the following events shall constitute cause for the City of Muskegon Heights to declare Contractor in default of the contract: A. Nonperformance of contractual requirements, or B. A material breach of any term or condition of this contract. Please note: the City of Muskegon Heights shall issue a written notice of default providing a period in which Contractor will have an opportunity to remedy. Time allowed for remedy shall not diminish or eliminate Contractor's liability for liquidated or other damages. If the default remains after Contractor has been provided the opportunity to remedy, the City of Muskegon Heights may do one or more of the following: A. Exercise any remedy provided by law; B. Terminate this contract and any related contracts or portions thereof; C. Impose liquidated damages or D. Suspend contractor from further proposal solicitations.

LAWS AND REGULATIONS

All supplies, services, and equipment offered and furnished shall comply fully with all applicable Federal and State laws and regulations.

GOVERNING LAW

This procurement and the resulting agreement shall be governed by and construed in accordance with the laws of the State of Michigan. The construction and effect of any Participating Addendum or order against the contract(s) shall be governed by and construed in accordance with the laws of the participating entity's State. Venue for any claim, dispute or action concerning an order placed against the contract(s) or the effect of a Participating Addendum shall be in the participating entity's State.

ASSIGNMENTS/SUBCONTRACT

The Contractor shall not assign, sell, transfer, subcontract or sublet rights or delegate responsibilities under this contract, in whole or in part, without the prior written approval of the City of Muskegon Heights.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

NON-DISCRIMINATION

The Bidder agrees to abide by the provisions of Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibits discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination based on sex; 45 CFR 90 which prohibits discrimination based on age, and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990, which prohibits discrimination based on disabilities. The bidder further agrees to furnish information and reports to requesting agencies, upon request, for the purpose of determining compliance with these statutes. The bidder agrees to comply with the City of Muskegon Heights' certification requirements if any, as stated in the additional terms and conditions listed in the solicitation. This contract may be cancelled if the bidder fails to comply with the provisions of these laws and regulations. The bidder must include this provision in every subcontract relating to purchases by the agencies to insure that subcontractors and vendors are bound by this provision.

SEVERABILITY

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

FORCE MAJEURE

Neither party to this contract shall be held responsible for delay or default caused by fire, riot, Acts of God and/or war which is beyond that party's reasonable control. The City of Muskegon Heights may terminate this contract after determining such delay or default will reasonably prevent the successful performance of the contract.

PROPOSAL PREPARATION COSTS

The City of Muskegon Heights is not liable for any costs incurred by the Bidder in proposal preparation.

CONFLICT OF INTEREST

The contractor certifies that it has not offered or given any gift or compensation prohibited by the state laws of any agency participant or to any employee of the participating agencies to secure favorable treatment with respect to being awarded this contract.

INDEPENDENT CONTRACTOR

The contractor shall be an independent contractor, and as such shall have no authorization, express or implied to bind the City of Muskegon Heights to any agreements, settlements, liability or understanding whatsoever, and agrees not to perform any acts as agent for the City of Muskegon Heights except as expressly set forth herein.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

NON-IRAN LINKED BUSINESSES

By signing below, I certify and agree on behalf of myself and the company submitting this proposal the following: (1) that I am duly authorized to legally bind the company submitting this proposal; and (2) that the company submitting this proposal is not a "Iran-linked business," as that term is defined in Section 2€ of the Iran Economic Sanctions Act, being Michigan Public Act No. 517 of 2012; and (3) that the company submitting this proposal and I will immediately comply with any further certifications or information submissions requested by the City in this regard.

INSURANCE (REQUIRED FOR WORK ON OR WITHIN CITY PROPERTY/FACILITIES)

The contractor, and any and all of their subcontractors, shall not commence work for the City of Muskegon Heights until they have obtained the insurance required under this paragraph. All coverage shall be with the insurance carriers acceptable to the City of Muskegon Heights. The City reserves the right to verify insurance carrier standing.

A. Workers' Compensation Insurance: The contractor shall procure and maintain during the life of this contract, Workers' Compensation Insurance, including Employers' Liability Coverage with limits of no less than \$500,000.

B. General Liability: The contractor shall procure and maintain during the life of this contract, Commercial General Liability Insurance on an "Occurrence Basis" with limits no less than \$1,000,000.00 per occurrence and aggregate project. Coverage shall include the following extensions (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractor Coverage; (D) Broad Form General Liability Extensions or equivalent, and, if not already included: Deletion of all Explosion, Collapse and Underground (XCU) Exclusions (if applicable).

C. Motor Vehicle Liability: The contractor shall procure and maintain during the life of the contract Motor Vehicle Liability Insurance, including Michigan's No-Fault Coverage, with limits of liability not less than \$1,000,000.00 per occurrence combined single limit for Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

D. Additional Insured: All insurance as described above shall include an endorsement stating the following shall be ADDITIONAL INSUREDS: The City of Muskegon Heights , all elected and appointed officials, all employees and volunteers, all boards & commissions and/or authorities and board members including employees and volunteers thereof. It is understood and agreed by naming The City of Muskegon Heights as additional insured, coverage afforded is considered primary and any other insurance the city may have in effect shall be considered secondary and/or excess.

E. Cancellation Notice: All Insurance listed above shall be endorsed "Thirty days advanced written notice of cancellation/reduction material change will be provided."

F. Proof of Insurance Coverage: An ACORD form outlining insurance coverage is required prior to commencement of work. All documents will be forwarded to the City of Muskegon Heights Fire Department 2724 Peck Street Muskegon Heights , MI 49444.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

EXAMINATION OF SPECIFICATIONS

It is incumbent on each manufacturer to be thoroughly familiar with the specification contained herein. The specification will require a "YES" or "NO" or when requested a definitive answer to each section or subsection. Sections or subsections not marked with a "YES" or "NO" or answered shall be deemed incomplete and considered non-responsive. A "YES" answer constitutes a complete compliance to the section or subsection as written. A "NO" shall indicate noncompliance and does not eliminate a manufacturer from competition. A manufacturer may object or counter to a specific section or subsection. A manufacturer must indicate in writing, as an attachment, the section or subsection in dispute. The manufacturer must include the verbiage as written, new verbiage presented, explanation of verbiage with consequences and supporting tests and documentation. Failure to comply will be deemed as non-responsive. This agency reserves the right to determine compliance.

DEFINITIONS:

The following definitions shall apply with regard to these specifications.

PURCHASER: The end-user of the equipment specified or the applicable purchasing agency acting on behalf of the end user.

CONTRACTOR: The individual, firm, partnership manufacturer, or corporation to whom the contract is awarded by the Purchaser and is subject to the terms thereof. For bidding purposes the contractor, vendor, bidder, manufacturer are synonymous.

EQUAL: This agency supports the design, engineering, quality and materials as specified in this document. This shall not prohibit the bidding of unlike product. However, any deviation from the specification must be marked and submitted per section A1.1.2. Failure to do so shall be deemed non-responsive.

MANUFACTURER: The manufacturer within this specification shall be considered the "primary manufacturer". As outlined in this specification, the chassis requirement is the responsibility of the primary manufacturer to procure.

REFERENCES

If requested by the purchaser, the primary manufacturer shall supply a list of ten (10) agencies that have purchased similar or identical vehicles within the past five (5) years from the date of bid. The list will have contact names and phone numbers. For the purpose of this section, if the bidder of record and the primary manufacturer are separate business entities, then each shall be required to submit financial, insurance, and/or licenser to conduct business within this jurisdiction. Failure to provide proper documentation with the bid response may result in any bid being deemed non-responsive.

The primary manufacturer shall be ISO 9001 certified. **No Exceptions.**

PAYMENT, DELIVERY AND ACCEPTANCE

A deposit may be remitted with the order not to exceed ten percent (10%) of the total contract amount.

Prepayments or progress payments for any part or material after contract award may result in a termination of the award. The contract will be given to the next responsible primary manufacturer. This

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

agency intends to do business with a company of sufficient financial means to meet the financial burdens necessary to complete and deliver the vehicle as specified.

If a prepay discount is utilized, then the above language does not apply.

A performance bond shall be required if a prepay discount is utilized.

Unless otherwise requested, the primary manufacturer shall arrange over the road delivery of the completed vehicle to this agency's designated local address under the vehicle's own power. Costs of transportation and preparation are included in the bid price. As an option, the primary manufacturer may offer a line item credit for pick up by this agency at their place of manufacture.

All bid prices and conditions must be specified on the Bid Proposal Form.

Bid prices shall be valid for sixty (60) days. However, in the unforeseen circumstance that this agency requires the primary manufacturer to extend pricing requirements, it will be at the discretion of this agency to request any deviation in prices quoted in writing from the primary manufacturer.

BID EVALUATION

The Purchaser shall evaluate bids received. This evaluation will be based on the following:

- Completeness of the proposal
- Manufacturing and Delivery schedule
- Primary manufacturer's demonstrated capabilities and qualifications
- Primary manufacturer's past performance on similar Bid Proposals
- Primary manufacturer's maintainability and recommendations
- Primary manufacturer's logistical and service support
- Bid proposals taking total exception to these specifications will not be accepted.

FINAL INSPECTION

A final inspection shall occur at the primary manufacture location, in a temperature-controlled inspection area separate from the production facility. The primary manufacturer will provide adequate transportation, lodging, and meals for two (2) designated personnel from this agency. Further, if the location is in excess of two hundred (200) miles from this agency's location, the transportation shall be by a commercial air carrier. Private or corporate aircraft may not be used.

DRAWINGS

The primary manufacturer shall provide a set of drawings that accurately depict the vehicle as specified. The drawings will show all exterior and interior planes with dimensions. Failure to comply will be deemed non-responsive.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

ANTI-COLLUSION STATEMENT

By signing this bid, the primary manufacturer agrees that this bid is made without any understanding, agreement or connection with any other person, firm or corporation making a bid for the same purpose and this bid is in all respects fair and without collusion or fraud.

VENDOR /BIDDER COMPLAINTS OR PROTESTS

The City of Muskegon Heights has established administrative procedures for handling bidder complaints fairly and timely.

Step 1: Bidders should inform the City Manager's Office via email within 48 hours days of the incident that he or she has a complaint. The City Manager will investigate the complaint and make a decision concerning the matter.

Step 2: If the bidder is dissatisfied with the City Managers' reply, an appeal must be made in writing within 48 hours to the Muskegon Heights City Council via the City Clerk.

BID AWARDS

1. No bid award will be made at the time of the bid opening.
2. Individuals submitting bids who wish to know the results before the award is made may call the Muskegon Heights Fire Department at (231) 733-8896.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT



MUSKEGON HEIGHTS FIRE DEPARTMENT

Muskegon Heights, Michigan

Request for Proposal for a Fire Apparatus

NOTICE TO ALL BIDDERS

It is not the intent of this document to restrict any bidder to particular construction methods or body materials. The requirements noted within this specification can be considered "general" unless specifically stated. A bidder that chooses an alternate construction method or material shall state why the alternative was used over the specified one in the bid proposal. It is not the intent of these specifications to call for an unusual or experimental vehicle(s). The primary manufacturer shall have a minimum of 10 years of uninterrupted manufacturing of similar or identical vehicles to the specifications set forth in this bid.

INTENT OF SPECIFICATIONS

These specifications intend to cover the furnishing and delivery to the purchaser of a complete apparatus equipped as hereinafter specified. Accordingly, these specifications cover only the general requirements as to the type of construction and tests to which the apparatus must conform, together with certain details as to finish, equipment and appliances with which the successful bidder must conform. Minor details of construction and materials where not otherwise specified are left to the contractor's discretion, who shall be solely responsible for the design and construction of all features.

Each bid shall be accompanied by a set of "contractor's specifications" consisting of a detailed description of the apparatus and equipment proposed and to which the apparatus furnished under contract must conform. The specifications shall indicate size, type, model and make of all component parts and equipment.

Desired Apparatus

The apparatus desired by the fire department is a quick-attack mini pumper with a 1000 GPM (minimum), mid-ship fire pump, a 300-gallon water tank, a hose storage area, and as much compartmentation space as practical. **The apparatus shall serve a dual role in firefighting and possible light-duty vehicle response.**

STOCK APPARATUS

If the bidder wishes to offer a "stock" or "demo" apparatus that meets the requirements of this bid request,

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

it will be considered by the purchaser. It shall be clearly stated that the proposed truck is a "stock" or "demo" apparatus and all exceptions to these specifications shall be described in detail.

CONSTRUCTION STANDARD

The apparatus shall meet the edition of NFPA 1901 that is in effect at the time of the bid.

EXCEPTIONS TO SPECIFICATIONS

Exceptions shall be considered if they are deemed equal to or superior to the specifications, provided they are fully explained on a separate page entitled "**Exceptions to Specifications.**" Failure to denote exceptions in the above manner may result in immediate rejection of the proposal. **In addition, a general statement taking "Total Exception" to the specifications may result in immediate rejection of bid.**

VEHICLE HEIGHT

The maximum allowable height of the completed vehicle shall be 10 feet".

PROPOSED VEHICLE DRAWING

The bidder shall include complete drawings of the proposed vehicles with the bid. The drawing shall include all dimensions of the apparatus, including the angles of approach and departure. **The dimensions shall be clearly stated.**

APPROVAL DRAWING

After the award of bid and pre-construction conference, a detailed drawing depicting the apparatus layout and appearance including any changes agreed upon shall be provided for customer review and signature. The drawing shall become part of the contract documents. The drawing shall consist of left side, right side, frontal and rear elevation views. Drawings shall include a view of the pump operator's panel on both sides to the same scale.

NFPA CERTIFICATION

The apparatus shall be compliant with the current edition of NFPA 1901 standards. The certification shall include all design, production, operational and performance testing of the apparatus. **No exceptions.**

PROJECT MANAGER

The bidder shall identify the project manager for the apparatus in the proposal. This person shall be the primary point of contact throughout the entire build process.

REFERENCES

The bid shall include a list of five (5) customers that have purchased a similar apparatus within the past three (3) years. In addition, the list shall include all contact information for each reference.

DELIVERY TIME

The bidder shall provide an estimated construction time to complete the apparatus beginning on the date of contract award.

BID EVALUATION PERIOD/PROCESS

Bid shall be valid for a minimum of **60** days from the bid opening date. Each bid shall stand alone and be evaluated on its own merit in terms of meeting the intent of the bid request and the needs of the fire department. Failure of the bidder to provide requested information in the proposal may result in

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

disqualification of the bid. The fire department reserves the right to require additional proof of bidder qualification if needed.

PERFORMANCE TESTS AND REQUIREMENTS

The road tests required, are those specified in NFPA Standard 1901. In addition, there are also local specific road tests that must be conducted due to the terrain in the area. The bidder shall conduct the tests at time of delivery to the purchaser in the presence of the accepting authority. The test shall be conducted with the apparatus fully loaded with water.

If the apparatus fails to meet the test requirements on the first trials, second trials may be made at the bidder's option within thirty (30) days of the date of the first trials.

Such trials shall be final and conclusive, and failure to comply with these requirements a second time shall be cause for rejection.

Permission to keep or store the apparatus in any building owned or occupied by the purchaser during the above specified period, with the permission of the bidder, shall not constitute acceptance. Insurance covering loss, theft or liability shall remain the bidder's responsibility until formal acceptance is completed.

QUALITY AND WORKMANSHIP

The design of the apparatus must embody the latest approved automotive engineering practices. The workmanship must be of the highest quality. Special consideration shall be given to accessibility to areas maintenance requirements and the ease of operation.

GENERAL CONSTRUCTION

The apparatus shall be designed and the equipment mounted with due consideration to distribution of load between the front and rear axles so that all specified equipment, including filled water tank, a full complement of personnel and fire hose shall be carried without injury to the apparatus. Weight, balance, and distribution shall be in accordance with the standards of NFPA. The manufacturer shall submit a certified laboratories certificate. Weight of apparatus shall meet all federal axle load laws.

DELIVERY REQUIREMENTS

The apparatus shall be completely equipped as per these specifications upon arrival and on completion of the required tests shall be ready for immediate service in the fire department of the purchaser. Any and all alterations required at the scene of delivery to comply with these specifications must be done at the contractor's expense.

The apparatus shall be driven from the manufacturing facility to the community by a factory trained delivery engineer who shall thoroughly demonstrate the complete apparatus operation and maintenance to the fire department designated personnel. There shall be three (3) training periods, one each day, to expose all personnel to proper apparatus operation. The training shall be scheduled by the fire department.

BRAND NAMES

Where brand names or manufacturer's names are used in this document, they are intended to establish a standard of quality or materials, equipment function and/or process. There is no intent to limit competitive bidding. The decision of the City of Muskegon Heights as to whether an alternate is in fact "equal" shall be final.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

PURCHASER RIGHTS

The purchaser reserves the right to accept or reject any bid. The purchaser also reserves the right to award in their best interest and reserves the right to waive any formalities.

FINAL AUTHORITY

The bidder acknowledges that the fire department shall be the final authority in evaluating the proposals. The bidder also acknowledges that if there is a dispute between the bidder and the fire department over what is in the department's best interest, the fire chief or designee will be the final authority.

MANUFACTURER'S EXPERIENCE

The manufacturer selected shall have been in business making similar apparatus for a minimum of ten (10) years.

ELIMINATION OF DIVIDED RESPONSIBILITY

It is desired that each bidder shall be the sole contact for all maintenance issues. This will eliminate any divided repair issues.

WARRANTIES PROVIDED

The bid proposal should include all warranty (verbiage) relevant to the vehicle. Suggested examples include:

- Factory Chassis Warranty
- Stainless Steel Plumbing
- Electrical Components
- Apparatus Manufacturer Parts & Labor Paint and Corrosion
- Apparatus Body Warranty

WARRANTY WORK

If the warranty work is to be performed at a location other than the manufacturer, a statement must be made naming the party or parties responsible for delivery and pick-up of the apparatus to the location. Expenses that are covered by the manufacturer should be included along with a listing of acceptable firms for performing warranty work. A statement indicating whether warranty work performed by a vehicle maintenance shop would be compensated by the manufacturer shall also be included.

REPAIR FACILITIES

The bidder shall have a factory-authorized repair facility within a reasonable distance of the fire department. This facility should have a stock of routine replacement parts available at the facility. The location of the nearest facility shall be stated in the bid. If one is not within a reasonable distance then a letter of intent to contract with a local repair company may be required before award of the bid.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

INSPECTION TRIPS

Two (2) inspection trips to the manufacturer's facility shall be provided. One trip shall be for the pre-build conference and the second shall be after significant completion of the apparatus but prior to delivery. Transportation to the facility shall be by air. Accommodations for two (2) fire department personnel per trip to include all transportation, food and lodging shall be included in the bid price. The apparatus must be in finished condition and ready for shipment (except for the mounting of loose equipment, which may be done in the field) when the final inspection is scheduled.

DEMONSTRATIONS DURING INSPECTION

A road performance test, pumping demonstration, and foam system demonstration will be performed during the final inspection. A "mini" pump test may also be requested at the buyer's discretion.

PROPOSAL GUARANTEE

A certified check or bid bond in the sum of five percent (5%) of the total bid price shall be submitted with the "bid proposal" at the time of the bid. The full amount of the bid surety shall be returned to unsuccessful bidders following the award of the contract.

PERFORMANCE BOND

Within twenty (15) days of notification to the successful bidder by the purchaser and prior to any work commencing on the proposed apparatus, the successful bidder shall, at their own expense, obtain and submit to the purchasing entity a performance bond in the amount of 100% of the total contract price. Additionally, each bidder must disclose the price/amount it pays for bonding, per \$1,000. This is to demonstrate the economic stability and creditworthiness of the bidder. No exceptions.

ERROR OR OMISSIONS

Any errors, omissions or discrepancies in the specifications discovered by a prospective bidder shall be brought to the attention of the Muskegon Heights Fire Department as soon after discovery. Further, the bidder shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications. Any error, omission, or inconsistency that the bidder identifies shall be listed as such in the exceptions page and a proposal to meet the intent of the specifications shall be documented.

OPTIONS LIST

An "Options List" will be provided at the end of this document. The option shall be priced "As installed," and any required changes shall be noted if the option is provided. If the option is not priced, it shall be assumed that the bidder chooses not to provide the option.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

CHASSIS - FORD F550 SUPER DUTY-4X4 OR DODGE RAM 5500 HD 4X4 CREW CAB

The apparatus chassis shall be equipped with a 6.7L Turbo-Diesel engine and a 6-speed automatic transmission with PTO provision. The vehicle shall include all of the standard factory equipment for this model and retain the factory warranty. The chassis shall use an Ambulance Prep Package if available. The chassis shall include the Ford "XL" trim package (or Dodge SLT) and be equipped with the Power Equipment package. The cab shall have bucket seats for the driver and passenger. The rear axle shall be a "limited slip" design. The wheels shall be polished aluminum. The tires shall be of the "All Terrain" type. All tire, wheel, axle, and GVWR ratings shall be appropriate for the weight of the completed apparatus.

The rear seating shall consist of a heavy-duty vinyl 60/40 bench flip-up/fold-down rear seat.

UNDERCOATING

The entire underbody (excluding drive shaft, wheels, fuel tank, and 12 inches on either side of the exhaust system) shall be sprayed with Transcoat 161 undercoating for rust prevention, corrosion protection, and added sound deadening. The material used shall be a low VOC product that meets MIL-Spec MIL-C-62218A and will remain flexible but tack-free.

SINGLE COLOR APPARATUS FINISH

The entire apparatus shall be painted in a single color, Ford F1 Red or Dodge equal. The apparatus body-color shall match the cab color.

CARRYING CAPACITY PLATE

There shall be a permanently attached plate mounted in plain view of the driver in accordance with NFPA 1901 standards. The tag shall include the following:

Overall height Overall length GVWR
Seating capacity

OCCUPANCY/SEAT BELT PLATE

Occupancy/seat belt plate(s) shall be provided and installed, which reads, "Occupants must be seated and belted when the apparatus is in motion." The plate(s) shall be visible from each seated position.

FLUID CAPACITY PLATE

A permanently affixed fluid date plate shall be installed in the driving compartment to indicate the type and quantities of the following fluid used in the vehicle.

APPARATUS MOVEMENT WARNING PLATE

A permanently affixed warning plate shall be installed near the door ajar light. The plate shall read: "DO NOT MOVE APPARATUS WHEN LIGHT IS ON".

REFLECTIVE MATERIAL – CAB DOORS

There shall be reflective material installed on the inside of the cab doors, meeting NFPA 1901.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

BATTERY ON LIGHT

A "Battery On" light shall be located on the cab dash visible from the driver's position. This light shall be wired to the master battery switch.

MASTER LOAD DISCONNECT

A master load disconnect shall be provided between the starter solenoid and the remainder of the electrical loads on the apparatus.

MASTER LIGHT SWITCH PANEL

All warning lights shall be switched from a master light switch panel mounted in the cab. This panel shall have a master light cutoff switch.

UNDER CAB LIGHTS

Two-(2) Whelen LED ground lights shall be installed one-(1) below each cab door illuminating the area below, providing a safe entrance and exit for cab occupants.

NFPA MONITORING SYSTEM W/VDR

The apparatus shall have a vehicle data recorder meeting the requirements of NFPA 1901 installed. The necessary software and data cable required for reading the recorder shall be included with the apparatus. The recorder access port shall be in an easy-to-reach place.

FRONT & REAR MUDFLAPS

Mudflaps shall be made from hard black rubber and installed at the rear of the front cab fenders and at the rear of the rear body fenders.

TIRE PRESSURE MONITORING SYSTEM

A tire pressure monitoring device shall be installed on the vehicle.

TOTAL SYSTEM MANAGER - CLASS 1

The apparatus shall be equipped with a Class 1 Total System Manager (TSM) for performing electrical load management. The total system manager shall be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance EMR/RFI protection.

12-Volt Battery Charging System

A Kussmaul battery charger shall be installed with auto-eject on the apparatus. The receptacle shall be mounted near the driver's door. A matching male plug shall be provided and shipped loose with the apparatus.

A shore-power "Inlet Plate" shall be permanently affixed at or near the power inlet. The plate shall indicate the following:

1. Type of line voltage
2. Current rating in amps
3. Power inlet type (DC or AC)

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

EXTENDED EXHAUST

The chassis exhaust pipe and muffler shall be extended to the front of the right rear wheel. Any required heat shields to protect body and/or compartments shall be installed.

PUMP ENCLOSURE - SIDE CONTROL - EXTRUDED

The pump module shall be a self-supported structure mounted independently from the body and chassis cab. The pump shall be isolated from the chassis in the best possible manner that allows for the pump, the body, and chassis to flex as needed. The main framework shall be constructed of T6 aluminum extrusions. The components shall be constructed from 3/16" (1.875) aluminum.

The front of the pump module shall be covered with aluminum treadplate to keep road debris from the front of the pump.

The enclosure should provide an area above the pump for the installation of crosslays or a dunnage area.

PUMP PANELS

All panels shall be constructed of polished aluminum. Vinyl coverings are not desired as these surfaces are subjected to rough service and vinyl is susceptible to tearing.

The master gauge panel should be vertically hinged with latches for access to gauges and auxiliary controls. The right side lower panel shall be completely removable for serviceability.

All gauges and controls shall be properly identified with color-coded metal tags. The gauges shall be functionally grouped above each control.

PUMP PANEL LIGHTS - LEFT SIDE & RIGHT SIDE

The pump panel shall have switched LED lighting installed on each side for optimum visibility during nighttime operations.

PUMP COMPARTMENT LIGHTS

One-(1) compartment light shall be installed in the pump compartment for inspection or routine maintenance wired to the pump panel light switch.

SLOTTED RUNNING BOARDS - LEFT SIDE/RIGHT SIDE

Running boards shall be provided on the left and right side of pump module, constructed of anodized aluminum extrusion slotted, punched, and raised to provide traction during inclement weather operations.

The running board stepping surfaces shall comply with the latest version of NFPA 1901.

PUMP SYSTEM

The pump shall be a single-stage centrifugal pump capable of producing 1250 GPM (minimum) at 150 psi. A PTO drive pump shall be considered. The gearbox should be a low maintenance design. All bearings should be of heavy-duty design for maximum performance and long life. Pump system shall incorporate a check valve between the suction manifold and the tank-to-pump valve. The pump shall have easily replaceable sacrificial anodes installed in the pump body. The pump shall be equipped with a high-quality, spring-loaded, self-adjusting mechanical seal. Wear rings shall be bronze and easily replaceable to restore original pump efficiency.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

The priming pump shall be positive displacement vane type, electrically driven, and conforming to standards outlined in NFPA 1901 Standard. Primer shall be environmentally safe, self lubricating, oil-less style.

The primer pump should be actuated by a single push-button control on the operator's panel.

The gearbox driveshafts shall withstand the engine's full torque in both road and pump operating conditions. The engagement of the pump transmission shall be of such design so as to permit the transfer of power from road to pump operation only after the vehicle is completely stopped. The pump shift shall be air actuated from the cab and have both a green "pump engaged" light, and a green "O.K.-to-pump" light. A third green light shall be provided on the pump operator's panel for "throttle ready".

A direct gear transmission lock-up for the fire pump operation shall engage automatically when the pump shift control, in the cab, is activated.

U.L. Certification (1250 GPM)

The vehicle shall be third party tested and certified by Underwriters Laboratories, Inc. The pump shall meet and perform the following test to receive a U.L. certification. A certification test plate shall be provided.

100% of rated capacities at 150 psi net pump pressure 100% of rated capacities at 165 psi net pump pressure
70% of rated capacities at 200 psi net pump pressure 50% of rated capacities at 250 psi net pump pressure

There shall be a field adjustable intake relief valve installed on the intake side of the pump and terminate with male NST hose thread.

WARRANTY

A warranty shall be provided and the terms clearly stated.

MANUALS

There shall be two copies of pump manuals provided to the department.

6" SUCTION HEADERS

A 6" NST non-gated suction header with removable screen, and long handled cap shall be provided on both the left and right sides of the pump.

INTAKE VALVE

An appropriately sized Akron electric "butterfly" intake valve shall be installed in the driver side main pump inlet and located behind the pump panel. An easily accessible drain shall also be provided.

INLET CAP

One (1) 6.00" chrome plated cap with long handles and NST threads shall be supplied. The cap shall be capable of withstanding 500 PSI and be trimmed with the apparatus manufacturer's logo in the center of the cap.

INTAKE RELIEF VALVE

There shall be a field adjustable, suction side relief valve provided in the pump system. The relief valve shall be from 50-175 psi and set at the factory at 125 psi.

THERMAL RELIEF VALVE

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

There shall be a thermal relief valve (TRV) supplied. The valve shall automatically dump a controlled amount of water to atmosphere when the pump water exceeds 120 degrees Fahrenheit. The valve shall re-set automatically.

PRESSURE GAUGES

Two compound 4-1/2" master gauges shall be provided. The discharges shall be provided with 2-1/2" pressure gauges that shall be installed above each discharge control on the pump operator's panel.

PRESSURE GOVERNOR WITH THROTTLE AND MONITORING DISPLAY

The pump operator's control panel shall install an electronic pressure governor with a throttle and engine monitoring system. The governor shall be configured to operate with the chassis engine. It shall regulate engine RPM to maintain a consistent pressure out of the water pump over a wide range of outgoing flows. The unit shall operate in both RPM and PSI modes.

The display shall provide the following engine RPM, check engine and stop engine warning LEDs

engine oil pressure, engine coolant temperature, transmission temperature, battery voltage, pressure and RPM operating mode LEDs, throttle ready LED.

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. All LED intensity shall be automatically adjusted for day and night time

MASTER DRAIN - PUMP

There shall be a master drain valve recessed mounted in an easily accessible location.

TANK TO PUMP - 3"

One (1) 3" ball valve shall be installed between the pump and the water tank. The tank-to-pump valve shall be a quarter-turn fixed pivot design constructed from bronze. The valve shall be controlled by a chrome push/pull locking "t" handle installed at the left pump panel.

TANK FILL - 2"

A 2" pump to tank fill line shall be installed, with a 2" inline bronze valve, high-pressure flexible hose tested to 1200 psi. The valve shall be push-pull (locking "t" handle) controlled from the pump operator's panel.

ENGINE COOLER

An engine cooler shall be installed, and the valve shall be located on the pump panel and clearly labeled.

PUMP COOLER

A pump cooler shall be installed, and valve shall be installed on the pump panel and clearly labeled.

PLUMBING - SUCTION INLETS & DISCHARGE OUTLETS

All suction and discharge lines of 2" or larger shall be constructed of galvanized steel pipe, where vibration or chassis flexing may damage or loosen threaded pipes, victaulic or roustabout couplings shall be used.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

All 2 ½", 4", and 5" suction and discharge outlets shall have "Muskegon Big 6" threads and designed for 500 psig including, valves, drain cocks, lines, intake, and outlet closures, excluding the tank fill and tank to pump lines (tank side of the valves). All other suction and discharge outlets shall have National Standard Threads (NST).

AKRON PUSH-PULL CONTROL VALVE PACKAGE

All discharge valves shall be Akron heavy-duty swing-out push/pull controlled from the pump operator's panel.

Color-coded tags with chrome-plated bezels shall be provided. Unless otherwise specified, all tags shall be color-coded to NFPA recommendations and shall be located at the control location, intake/discharge location, and at the drain port location.

NFPA recommendations:

- Preconnect #1 or front bumper jump line Orange
- Preconnect #2 Red
- Preconnect #3 or discharge #1 Yellow
- Preconnect #4 or discharge #2 White
- Discharge #3 Blue
- Discharge #4 Black
- Discharge #5 Green
- Deluge/deck gun Silver
- Water tower Purple
- Large-diameter hose Yellow with white border
- Foam line(s) Red with white border
- Booster reel(s) Gray

2-1/2" SUCTION - LEFT PANEL

One-(1) 2-1/2" swing operated ball valve shall be installed at the pump panel, plumbed to the suction side of the pump with 2-1/2" piping, chrome inlet swivel, inlet strainer, chrome plug with chain, and drain valve. A warning plate permanently affixed in close proximity of the suction inlet shall be installed stating: "Warning - Serious injury or death could occur if inlet is supplied by a pressurized source when the valve is closed".

CROSSLAYS 1-3/4"

Two (2) pre-connected crosslays, shall be provided above the side mount operator's panel. Each shall hold a 200' of 1-3/4" double jacket hose, with stainless steel nylon guided rollers installed at each end, and stainless steel scuff plates around the perimeter of the crosslays protecting the painted surfaces. A 2" ball valve with drain and mechanical swivel shall be installed for each crosslay and plumbed with high-pressure flexible hose couplings tested to 1200 psi push/pull controlled at the pump operator's panel. A crosslay cover shall be provided.

- Each crosslay 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 1.75" fire hose.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

2-1/2" DISCHARGES

The apparatus shall have 4 Akron 2-1/2" heavy-duty ball valves with 3/4" drain shall be installed at the pump panel, 2 located on the left side and 2 located on the right side. All valves shall be controlled from the pump operator's panel. All outlets will terminate with chrome-plated 30-degree elbows, chrome caps, and chains.

BOOSTER REEL:

One (1) Hannay booster reel with electric rewind shall be installed. The reel installation shall include two (2) roller/spool assemblies. A stainless-steel roller and chrome-plated spools shall be appropriately located to allow easy deployment and rewind. The reel shall contain 100' of 1" red rubber booster hose coupled 1".

BOOSTER TANK

The booster tank shall be polypropylene with the capacity to hold a minimum 300 U.S. gallons of water.

The booster tank shall be designed to be completely independent of the body and compartments. The tank shall be completely removable without disturbing or dismantling the apparatus structure. The top of the tank shall be fitted with removable lifting eyes to facilitate easy removal.

The tank shall have a combination vent and manual fill tower. The tower shall have a 1/4" thick removable polypropylene screen and a polypropylene hinged-type cover. Inside the fill tower shall be fastened a combination vent/overflow pipe. The vent pipe shall be piped behind the rear wheels to maximize traction.

There shall be one tank sump installed and be located where appropriate for the tank. The sump shall have a minimum 3" NPT threaded outlet on the bottom for a drain plug. This shall be used as a combination clean out and drain.

The manufacturer shall certify the capacity of the water tank prior to the delivery of the apparatus. This capacity shall be recorded on the manufacturer's construction record, and the certification shall be provided when the apparatus is delivered.

TANK WARRANTY - LIFETIME

The tank warranty shall be good for the service life of the original vehicle. In event that the tank manufacturer cannot fulfill the warranty, then the apparatus manufacturer shall assume this responsibility. There shall be no exceptions.

WATER LEVEL GAUGE

Two (2) Fire Research "TankVision" (or equal) tank level gauges shall be installed. One on the pump operator's panel and the second opposite the pump operators panel on the right side of the apparatus. The gauges shall have LED displays. A built-in calibration system shall allow a bottom tank-mounted transducer to be mounted with any tank configuration.

APPARATUS BODY CONSTRUCTION

The apparatus body and subframe shall be constructed using the best industry practices.

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

BODY CONSTRUCTION

The complete apparatus body structure shall be an all welded construction and be free from nuts, bolts, and other fasteners. Upon completion of the weldments, the body shall be completely sanded and deburred for **removal of all sharp edges**.

The body framework shall be formed from aluminum alloy extrusions and the body sides shall be formed from marine grade smooth aluminum plates. The horizontal surfaces above the compartment tops shall be constructed from aluminum treadplate.

The wheel well liners shall be constructed of smooth aluminum plates. They shall be bolted in place for ease of maintenance. The wheel well fenderettes shall be constructed of stainless steel with a polished finish.

A deflection shield shall be mounted to the body subframe to keep road debris from entering the water tank area.

The hosebed sides shall be constructed of a marine-grade smooth aluminum plate welded to the extruded framework. There shall be an aluminum extrusion running the entire length of the hosebed at the top for structural rigidity. The hosebed decking shall be constructed from anodized aluminum extrusions attached to the underside to form a one-piece grid. The entire deck shall be removable to allow ease of serviceability to the tank. In addition, the hosebed shall include an extrusion across the front and rear of the compartment for the installation of adjustable hosebed dividers.

COMPARTMENT CONSTRUCTION

The compartment sidewalls shall be of one-piece construction. The walls shall be formed from a marine-grade aluminum plate. All compartment floors shall be formed from aluminum treadplates. The floors shall be welded in place with a continuous weld all around the perimeter to ensure maximum strength. All compartments shall be of a "sweep-out" design.

The external compartment shall have a formed edge, which serves as a drip rail for the compartments below. The compartment tops shall be secured with stainless steel screws to allow easy removal for access to the body's wiring harnesses.

The compartment seams shall be sealed with permanent pliable silicone caulking.

Each compartment shall be vented through a louver that is stamped in a panel located in each body corner extrusion. The panel shall be removable to provide access to service wiring and other mounted components.

COMPARTMENTATION

Left and Right Sides

There shall be as much compartmentation space as practical. There should be three (3) compartments on each side of the apparatus. One compartment shall be in front and one behind the rear axle and one shall be above the axle. All doors shall have the maximum useable opening space allowable. Each compartment shall have an adjustable shelf installed on unistrut track.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

CENTER REAR

There shall be one (1) compartment installed at the center rear of the apparatus. The compartment shall be as large as possible. The compartment shall have the maximum useable door opening.

GROUND LADDERS & STORAGE

The apparatus shall be equipped with 2 ground ladders. One shall be a Duo-Safety 22' three (3) section aluminum extension ladder. The other shall be a Duo-Safety 10' folding ladder. Both ladders shall meet NFPA standards. The ladders shall be mounted in a manner that does not exceed the overall height requirements of this vehicle specified in this document. In addition, the ladder mounts shall not reduce the hosebed capacity.

COMPARTMENT LIGHTS

Each compartment shall have LED lighting that will illuminate the entire compartment and will activate when the door is opened.

COMPARTMENT DOOR CONSTRUCTION

All side compartment doors shall be roll-up doors. All doors shall be non-locking. All doors shall include drip pans. The doors shall be painted to match the body color.

DOOR AJAR SYSTEM

All apparatus body doors shall be provided with a door switch. These switches shall operate the compartment interior lights and activate the door ajar indicator on each side of the apparatus body when the door is opened. A red door ajar light shall be mounted in the cab in view of the driver to indicate an unsecured door. A buzzer shall be mounted in the cab that shall alert the driver.

FUEL FILL- RECESSED WITH DOOR

There shall be a cast aluminum recessed fuel fill assembly with a non-locking door mounted on the left side of the apparatus body. The fuel fill assembly shall be equipped with a fuel fill cap, retention ring and a cast aluminum door. The assembly shall be properly labeled "Diesel Fuel Only".

BODY TRIM

THE STANDARD BODY TRIM

There shall be 1/8" (.125") aluminum treadplate installed over all side compartment tops to provide a drip rail over the compartment door openings. In addition, a drip rail shall be located over each compartment door. This drip rail shall form a lip over the exterior door pans to prevent water from running into a compartment.

The vertical rear face of the body shall be covered with smooth aluminum plate.

Two (2) handrails shall be located on the rear beavertails; one handrail per beavertail. Each handrail shall be constructed of 1-1/4" ribbed aluminum tubing, with chrome end stanchions. Each handrail shall be sufficient in length to meet all standard requirements.

Two (2) stanchions shall be mounted at the rear of the apparatus hosebed, one (1) each side. The stanchions shall be 11" l x 3.75" w and manufactured out of polished cast aluminum. Stainless steel scuff

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

plates shall be installed in the hosebed area to prevent deploying hose from being damaged on stanchion supports. The stanchions shall provide mounting positions for the zone c warning lights and additional hosebed lighting. All wiring for the upper rear lighting shall be concealed inside the stanchions.

ALUMINUM RUB RAIL

There shall be a rub rail installed on both sides of the lower body compartments. The rub rail shall be bolted in place with stainless steel bolts and spaced from the fire body to provide body protection. The rub rail shall serve as protection to the side doors when encountering close objects.

SLOTTED REAR STEP

The rear step shall be constructed with anodized aluminum extrusion. This extrusion shall be slotted, punched, and raised to provide traction during wet and cold weather operations. The rear step shall be of an easily removable design.

All running board and step surfaces shall comply with NFPA 1901.

REAR TOW EYES

Two-(2) rear tow eyes shall be mounted at the rear of the vehicle. The eyes shall have a minimum dimension of three-(3) inches.

REAR HANDRAIL

There shall be an intermediate handrail supplied and installed on the apparatus. The handrail shall be made out of 1-1/4" ribbed aluminum. The handrail shall be mounted below the hose bed and above the center rear compartment. The handrail shall be mounted with chrome-plated end stanchions.

HOSE BED CAPACITY

The hose bed shall have the maximum amount of capacity available given the height restrictions imposed on the vehicle.

HOSE BED COVER

A hose bed cover meeting NFPA requirements shall be installed on the main hosebed. The end of the hose bed cover shall be secured and cover the hose bed opening. The cover shall completely protect the hose in the hosebed and prevent hose from inadvertently deploying during normal operation.

HOSE BED DIVIDER

One (1) hose bed divider shall be manufactured from 1/4" (.250") smooth aluminum plate with an extruded aluminum base welded to the bottom. The divider shall have an extruded track to slide in to allow the hose bed to adjust for different hose capacities. One end of the divider shall have a 3" radius corner. The divider shall be sanded as to prevent damage to hose.

SCBA BOTTLE COMPARTMENTS

Three (3) SCBA bottle compartments shall be installed in the wheel well area of the body. One (1) shall be installed on the left hand side, and two (2) on the right hand side. Each compartment shall allow the storage of an SCBA cylinder up to 7.50" in diameter x 22" deep.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

CHROME FOLDING STEPS

There shall be two (2) large chrome-folding steps mounted on the front face of the forward compartment, one (1) each side.

REAR LIGHTED STEPS

There shall be rear-lighted steps installed on the apparatus. The steps shall be a Cast Products step and shall conform to the NFPA 1901 standards. The step(s) shall include 12-volt lighting to illuminate the area below.

BODY ELECTRICAL SYSTEM

The body electrical system shall be designed as an integrated electrical package engineered explicitly for fire apparatus application. The integrated electrical system shall be comprised of central power distribution panels, which interface with the body and chassis through an engineered harness system. The electrical distribution panels and circuits must be easily accessible.

The complete body electrical system shall be 100% documented and contain independent circuit diagrams with point-to-point wiring information and a general component diagram included in the apparatus manual.

All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the driver. Light switches shall be of the marine-grade rocker type with integral indicator light to show when lights are energized. All switches shall be appropriately identified.

12-VOLT TESTING

The apparatus low voltage system shall be tested and certified. A copy of certification shall be provided to the purchaser with the apparatus.

WHELEN LED LIGHTING PACKAGE

A fully compliant NFPA lighting package meeting all zone requirements of NFPA 1901 standards shall be installed on the apparatus. All lighting shall be mounted as recommended by NFPA. All lens colors shall be red over clear LED's. The lights shall be activated by a single emergency light switch located on the master light switch panel in the cab.

SCENE LIGHTS

One (1) pair of LED scene lights shall be installed, one (1) each side on the upper left- and right-hand side of the apparatus body. Each light shall be capable of delivering 5,500 lumens

One (1) pair of LED scene lights shall be installed, one (1) each side on the upper rear of the apparatus body. Each light shall be capable of delivering 5,500 lumens

Example: Whelen Pioneer Slimline dual head

{Continued}

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

SIREN & SPEAKER

There shall be one (1) Whelen model WS-295 sirens installed. The siren amplifier and control panel shall be assembled as a single unit. The unit shall be mounted in the cab. The speaker shall be a Cast Products, model SA4311, 100-watt.

WHELEN STOP, TURN AND BACK-UP LIGHTS (LED)

Stop, turn, and backup lights shall be Whelen 600 series, individual fixtures. Fixtures shall be mounted on each rear face of the body recessed in a highly polished aluminum trim ring. The red stop (led) light shall be model 60r00brr, the turn light shall be an amber (led) type with directional arrow, and the backup light shall be a white (led) model.

LICENSE PLATE LIGHT

Chrome license plate light shall be installed on the rear of the vehicle.

UNITY DECK LIGHTS

Two-(2) 6" chrome plated deck lights with swivel mount shall be installed one-(1) each side at the rear of the apparatus. Each light shall be manually operated and switched on and off at the light. The lights shall not extend above the height of the rear body.

BACK-UP ALARM

There shall be one-(1) electronic back-up alarm installed on the apparatus.

UNDERBODY LIGHTS

Underbody "ground effect" lights shall be installed at a location to be determined during the pre-construction conference. The underbody lights shall illuminate the ground beneath the fire apparatus. The lights shall have a clear lens.

BODY PAINT FINISH

The body exterior shall have no mounted components prior to painting to assure full coverage of metal treatments. Box pan compartment doors shall be painted separately to assure proper paint coverage on body, doorjamb, and door edges.

PAINT COLOR CODE

The exact apparatus body paint code shall be determined at the pre-construction meeting.

SCOTCHLITE STRIPE

A straight Scotchlite stripe shall be located on the apparatus cab and body. The stripe shall be installed to meet the current NFPA requirements. The stripe shall be white in color.

STRIPE - REAR REFLECTIVE

A minimum of fifty percent of the rear vertical surface of the unit shall be overlaid with a reflective material, installed in an alternating "chevron" pattern (sloping down and away from the centerline) at a 45-degree angle. The pattern and colors shall be in compliance, with the current edition of NFPA 1901.

CITY OF MUSKEGON HEIGHTS FIRE DEPARTMENT

LETTERING

There shall be a maximum of sixty (60) 3" tall Mylar letters applied to the apparatus. The lettering shall also have a one color Mylar shade applied.

OPTION LIST

The option shall be priced "As installed," and any required changes, if the option is provided, shall be noted. If the option is not priced, it shall be assumed that the bidder chooses not to provide the option.

OPTIONS REQUESTED TO BE PRICED IF AVAILABLE:

Add: Install 2 Fire Research Spectra Q15 LED extendable pole lights, one (1) each side of the apparatus body (Not to exceed maximum apparatus height restrictions when lowered)

Add: Color rear camera system with in-dash monitor

Add: Water and Foam tank level indicators on dashboard

Add: Inside the cab tire pressure monitoring system

Add: Upgrade main hosebed cover to a hard deck, NFPA approved walking surface

Add: 120v inverter with outlets in the cab

Add: Move one left pump panel discharge to left rear apparatus body

Add a long backboard storage compartment

Add: brush guard and 9,000lb winch

Add: Turtle Tile flooring (or equal) to all compartments

Add: SCBA Seating

Add: Federal Q Siren bumper mounted.

Add Foam System: direct injection foam proportioning system furnished and installed on the apparatus. Suitable for handling Class A foam concentrate. Plumbed to the two (2) crosslays and other discharges if possible. Installed in accordance with the manufacturer's recommendations and meet NFPA standards for foam proportioning systems. The cell shall have a minimum capacity of 5 gallons of foam with the intended use of Class A foam.