

WEST HAVEN FIRE SERVICES



Firefighter Rehabilitation Vehicle

APPARATUS SPECIFICATIONS

2025

ISSUED BY: West Haven Fire Tri-District Committee

DATE OF ISSUE: 10-30-25

DEADLINE FOR PROPOSALS: 12-11-25 3PM

POINT OF CONTACT:

Chief James O'Brien

366 Elm St. West Haven, CT. 06156

(203)937-3710

jobrien@westhavenfiredept.com

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CALENDAR OF EVENTS/BID TIMELINE

Listed below are the important dates and times by which the actions noted must be completed. All dates are subject to change by the West Haven Fire Services- Tri-District Committee (WHFS-TDC). If the WHFS-TDC finds it necessary to change any of these dates or times prior to the Bid due date, the change will be accomplished by addendum.

ACTION COMPLETION DATES

Issue Bid Request: 10-30-25

Final Day for Questions: 11-19-25

Bid Due: 12-11-25 3PM

Bid Documents Review Beginning: 12-12-25

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BID CHECKLIST

This standardized check list has been provided to assist the Bidder with the submission of their Bid package. This check list cannot be construed as identifying all required submittal documents for this project. Bidders remain responsible for reading the entire Bid document to ensure that they are in compliance.

Bidders may be considered subject to rejection if, in the sole opinion of the WHFS-TDC, there is a serious omission, unauthorized alteration of form, and unauthorized alternate Proposal, incomplete or unbalanced unit price, or irregularities of any kind.

- ☐ Bid Cover Page
- ☐ Bid Form(s)
- ☐ Exceptions/Deviations Page
- ☐ Disclosure of Subcontractors, Sub-consultants and Suppliers
- ☐ Vendor Questionnaire and References
- ☐ W-9
- ☐ Copy of Required/Applicable Licenses or Certifications
- ☐ Specifications
- ☐ All Warranty Information
- ☐ Required Number of Bid Copies (1 Original and 4 Copies = 5 Total)

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PART 1 - INTENT AND GENERAL INFORMATION REQUEST FOR BID

SECTION 1 - GENERAL INFORMATION

1.1 Purpose

The West Haven Fire Services Tri-District Committee (WHFS-TDC) is seeking proposals from qualified apparatus manufacturers for the design, construction, and delivery of one (1) new Firefighter Rehabilitation Apparatus. This apparatus will serve as a mobile command, rehabilitation, and support unit for emergency operations.

1.2 Scope of Work

The successful Bidder shall furnish all labor, materials, equipment, and services necessary to manufacture and deliver one (1) complete rehabilitation apparatus as specified herein. The apparatus shall be designed and manufactured in accordance with applicable NFPA standards, federal motor vehicle safety standards (FMVSS), and all specifications contained in this document.

1.3 Examination of Bid Documents

Bidders shall thoroughly examine all bid documents, specifications, and requirements. Each Bidder is responsible for informing themselves fully regarding all conditions and requirements that may affect the work or cost of performance. No allowance will be made for any Bidder's lack of knowledge of existing conditions or requirements.

1.4 Questions and Clarifications

- All questions received by 11-19-25 will be considered. Questions will not be answered over the phone. Questions must be in writing via e-mail to Chief James O'Brien at jobrien@westhavenfiredept.com.

Sealed Bids will be received by the WEST HAVEN FIRE DEPARTMENT ON BEHALF OF THE WHFS-TDC 366 ELM STREET, WEST HAVEN, CT 06156 until 12/11/25 3PM for: RFP Firefighter Rehabilitation Vehicle. Proposers shall take careful notice of the following conditions of this Request for Proposals:

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- Submissions by FAX or other electronic media will not be accepted under any circumstances. Late submissions will not be accepted under any circumstances.
 - Submitters may withdraw and/or replace proposals at any time until the deadline for submission of proposals.

FORMS AND SPECIFICATIONS

Details, bid forms, and specifications are available in person at 366 Elm Street, West Haven, CT 06516. Forms are also available by email request. Bidders are required to use the official "BID FORMS", and all attachments itemized herein are to be submitted as a single document.

EXCEPTIONS AND DEVIATIONS

Any variation from the minimum specifications must be clearly stated and explained in detail on the EXCEPTION/DEVIATION FORM. These specifications are based upon design and performance criteria. Subsequently these specifications reflect the only type of fire apparatus that is acceptable. Therefore, major exceptions to these base specifications will not be accepted. The Bidder will make accurate statements as to the apparatus weight and dimensions. All proposals will include a complete set of detailed manufacturer's specifications. Omissions and unacceptable variations will result in immediate rejection of the bid. Bids that are found to have deviations without listing them will be rejected. No exceptions. No prototype apparatus will be considered. All design, operational and material features must fully comply with the State and Federal Motor Vehicle Safety Standards.

HOW TO SUBMIT A BID

One complete bid form set (1 original plus 4 copies) with all required documents as itemized and included herein is to be submitted in a sealed envelope, on the outside of which shall be prominently marked with the name and address of the submitter. The Bid should be neat, professional in appearance and bound appropriately for the document's thickness. The original document shall have original signatures and clearly noted with ORIGINAL on the cover. All proposals shall be mailed or hand delivered to the West Haven Fire Department on behalf of the WHFS-TDC at the address given, by date and time set forth herein.

VENDOR RESPONSIBILITY

Bidders are fully and completely responsible for the labeling, identification and delivery of their proposals. The WHFS-TDC will not be responsible for any mislabeled or misdirected submissions, nor those handled by delivery persons, couriers, or the U.S. Postal Service.

BID DOCUMENTS REQUIRED

The following documents and forms in the following arrangement must accompany each bid or alternate bid submitted:

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- Bid Cover Page. This is to be used as the first page of the bid. This form must be fully completed and signed by an authorized officer of the Vendor.
 - Bids Form
 - Exceptions or Deviations to Specifications Form
 - Disclosure of Subcontractors, Sub-consultants and Suppliers
 - A sworn, notarized Vendor Questionnaire and References
 - W-9
 - Specifications
 - All Warranty Information

EXAMINATION OF BID DOCUMENTS

- Each Vendor shall carefully examine the Drawings and/or Specifications and other applicable documents, and inform himself/herself thoroughly regarding any and all conditions and requirements that may in any manner affect cost, progress or performance of the work to be performed under the Contract. Ignorance on the part of the Vendor will in no way relieve him/her of the obligations and responsibilities assumed under the Contract.
- Should a Vendor find discrepancies or ambiguities in, or omissions from, the Drawings and/or Specifications, or should he/she be in doubt as to their meaning, he/she at once notify the WHFS-TDC, in writing. No oral interpretations will be made to any Vendor as to the meaning of the Bid Documents. Any inquiry or request for interpretation received by the WHFS-TDC by 11/19/25 will be given considerations. All such interpretations will be made in writing in the form of an e-mail to Chief James O'Brien-jobrien@westhavenfiredept.com

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SECTION 2 - EVALUATION PROCESS

TECHNICAL EVALUATION

Technical evaluation shall be based upon the ability of the Bidder to meet or exceed the minimum requirements set forth in the specifications during the expected life of the apparatus being bid. Estimates concerning the ability of the fire apparatus to perform accordingly shall be made by the Purchaser: a) Quality of workmanship, materials, and components used in construction of fire apparatus b) Functional design of fire apparatus c) Warranties d) Any other factors the Purchaser deems to be relevant

The award will be based on the proposal that is most advantageous to the WHFS-TDC. The WHFS-TDC reserves the right to apply the evaluation criteria in any manner it deems necessary and to evaluate each firm separately or comparatively, using these criteria in any weight or importance as it sees fit. The WHFS-TDC also reserves the right to seek clarification from prospective firms on any issue in a response, invite specific firms for site visits or oral presentations, or take any action it feels necessary to properly evaluate the submissions and construct a solution in the WHFS-TDC best interest. Failure to submit the requested information or required documentation may result in the lessening of the bid score or the disqualification of the bid response. Do not attempt to contact any WHFS-TDC Employee, volunteer, City of West Haven employee, associated Fire Commissioner, or any person with any interest in this bid process as related to WHFS-TDC other than Chief James O'Brien (jobrien@westhavenfiredept.com) for questions relating to this project. Anyone attempting to lobby District representatives will be disqualified. Bid awards are subject to all governing bodies of the WHFS-TDC.

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SECTION 3- BID SUBMITTAL

ONE (1) original and (4) FOUR copies (for a total of 5), of each bid shall be submitted in a sealed envelope, prominently marked on the outside with the words, "Purchase of Firefighter Rehabilitation Vehicle."

- Deadline for Submissions in response to the Request for Bids: Bids must be received no later than 12/11/25, 3pm. Bids submitted by FAX or other electronic media will not be accepted under any circumstances. Late bids will not be accepted, and will be returned, unopened, to the bidder, at the Bidder's expense.
- The WHFS-TDC reserves the right to reject any and/or all bids, reserves the right to waive any informalities or irregularities in the proposal, and reserves the right to award contract(s) in the best interest of the WHFS-TDC.

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SECTION 4 - BID DOCUMENTS

BID COVER PAGE

Name of Firm, Entity, or Organization: _____

Federal Employer Identification Number (EIN): _____

Name of Contact Person: _____

Title: _____

E-Mail Address: _____

Mailing Address: _____

Street Address (if different): _____

City, State, Zip: _____

Telephone: _____

Organizational Structure – please check one:

☐Corporation ☐Partnership ☐Proprietorship ☐Joint Venture ☐Other:

If Corporation:

Date of Incorporation: _____

State of Incorporation: _____

States Registered in as Foreign Corporation: _____

Authorized Signature: _____

Print Name: _____

Signature: _____

Title: _____

Phone: _____

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This document must be completed and returned with your submittal.

BID FORM

Name of Firm Submitting Bid _____

Name of Person Submitting Bid _____

BID ACKNOWLEDGMENT "The undersigned, as Bidder, hereby declares that he/she has informed himself/herself fully in regard to all conditions to the work to be done, and that he/she has examined the Bid Request and Specifications for the work and comments hereto attached. The agrees, if this bid is accepted, to contract with the WHFS-TDC in the form of a Purchase Order, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation, labor and service necessary to complete the work covered by the Bid request and Contract Documents for this Project. The Bidder agrees to accept in full compensation for each item the prices named in the schedules incorporated herein."

TOTAL SUM OF BID \$ _____

Signature _____

Date _____

This document must be completed and returned with your Submittal.

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DISCLOSURE OF SUBCONTRACTORS, SUB-CONSULTANTS AND SUPPLIERS

Name of Firm Submitting Bid: _____

Name of Person Submitting Bid: _____

Please list all Subcontractors, Sub-consultants or Suppliers to be used in connection with performance of this contract. Attach additional sheets as necessary.

Name of Firm or Agency: _____

Address: _____

Telephone: _____

Contact Name /Title: _____

Name of Firm or Agency: _____

Address: _____

Telephone: _____

Contact Name /Title: _____

Name of Firm or Agency: _____

Address: _____

Telephone: _____

Contact Name /Title: _____

Name of Firm or Agency: _____

Address: _____

Telephone: _____

Contact Name /Title: _____

Name of Firm or Agency: _____

Address: _____

Telephone: _____

Contact Name /Title: _____

Name of Firm or Agency: _____

Address: _____

Telephone: _____

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Contact Name /Title: _____

VENDOR QUESTIONNAIRE AND REFERENCES

(You may use a separate sheet for additional information)

VENDOR: _____

DATE: _____

1. Where are your corporate/ business headquarters located?

2. Where is your factory located?

3. Where is the nearest full-service center in relations to West Haven, CT, 06516?

4. How many years has your organization been in business under your present business name?

5. List all previous business names of your organization:

6. Will you furnish a written guarantee that sufficient replacement equipment and/or replacement parts and components will be available at your facility if requested within a minimum 24-hour period?

7. Will your company provide a written copy of the manufacturer's written or expressed warranty on the equipment? Provider must state length of standard warranty and any extended warranties available as well as all requirements for the WHFS-TDC to remain within warranty compliance.

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8. Does your company contract out the warranty repair work? If so, how long has your company done this? How long has the current vendor been with your company? Please provide name, address and phone number of vendor.

9. Have you ever failed to complete any work awarded to you in the last 3 years? Yes___ No___ If yes, where and why?

10. List/describe THREE (3) contracts/projects with similar specifications that you currently have or have recently completed.

Project Location: _____
Date: _____
Contract Amount (General Budget): _____
Contact Name: _____
Phone Number: _____
Email: _____

Project Location: _____
Date: _____
Contract Amount (General Budget): _____
Contact Name: _____
Phone Number: _____
Email: _____

Project Location: _____
Date: _____
Contract Amount (General Budget): _____
Contact Name: _____
Phone Number: _____
Email: _____

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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:

- a) 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 such prices with any other bidder or any competitor
- b) 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
- c) 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
- d) That all requirements of the law including amendatory provisions as to non-collusive bidding have been complied with.

Authorized Signature_____

Name (Printed)_____

Title_____

Dated:_____

This document must be completed and returned with your Submittal.

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VENDOR'S AFFIDAVIT

State of _____

County of _____

Before me personally appeared _____ who is (title) _____

of (the company described herein) _____

being duly sworn, deposes and say that the foregoing statements are a true and accurate statement of the position of said organization as of the date thereof, and, that the statements and answers to the foregoing experience questionnaire are correct and true as of the date of this affidavit; and, that he/she understands that intentional inclusion of false, deceptive, or fraudulent statements of this application constitutes fraud; and, agrees to furnish any pertinent information requested by the District deemed necessary to verify the statements made in this application or regarding the ability, standing and general reputation of the applicant.

Personally Known _____ or Produced Identification _____

Sworn to and subscribed before me this day of _____, 2025.

NOTARY PUBLIC _____ STATE OF _____
(PRINT NAME OF NOTARY PUBLIC)

Signature of Notary Public

(SEAL MUST BE AFFIXED)

This document must be completed and returned with your Submittal.

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Section 5- Scope of Service

INTRODUCTION

The West Haven Fire Services- Tri-District Committee is comprised of 3 distinct fire departments- The West Haven Fire Department First Fire Taxation District, The West Shore Fire Department, and the City of West Haven- Allingtown Fire Department, serving approximately 56,000 residents in the City of West Haven.

The intent of this purchase is to acquire a Firefighter Rehabilitation Vehicle for the purpose of responding city wide to the above districts including but by no means limited to: short term incidents involving structure fires, technical emergencies and the like, long term incidents as related to natural disasters and weather-related emergencies, planned large scale events, scheduled trainings, and special events. Functions will include but not limited to physical & mental rehabilitation of staff, communications, and general operational response.

INTENT OF SPECIFICATIONS

It is the intent of these specifications to describe, in detail, the minimum requirements for furnishing a complete, custom-made apparatus manufactured and equipped as hereinafter specified. Additionally, these specifications are provided as a means to secure apparatus constructed to withstand the severe and continuous use encountered during the events listed above. The apparatus will be of the latest type, carefully designed and constructed with due consideration to the nature and distribution of the load to be sustained. These specifications detail the requirements for general design criteria of cab and chassis components, water tanks, body, electrical components, painting, and equipment. In evaluating the bid proposals to determine which proposal is the most advantageous, these major items will be considered. Apparatus and equipment must meet the specific requirements and intent of the requirements as specified herein. All items of these specifications will 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, "Suggested Specifications for Motor Fire Apparatus", as approved by the American Insurance Association and International Association of Fire Chiefs, is hereby adopted and made a part of these specifications the same as if they were written out in full, in so far as they apply and are not specifically modified in the following detailed specifications. These specifications cover only the general requirements as to the type of construction and certain details such as; finish, equipment and appliances with which the apparatus and the successful bidder must conform. Minor details of construction and material where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and the construction of all features. The apparatus proposed, in addition to complying with these specifications, shall also comply with the appropriate current

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requirements of the National Fire Protection Association (NFPA) 1901, the Department of Transportation, the Federal Motor Vehicle Safety Standards, and the Society of Automotive Engineers in effect on the date of the bid unless stated otherwise in these specifications.

QUALITY AND WORKMANSHIP

The design of the apparatus must embody the latest approved automotive engineering practices. The workmanship must be the highest quality in its respective field. Special consideration shall be given to the following points: accessibility to various areas requiring periodic maintenance, ease of operation and symmetrical proportions. Construction must be rugged and ample safety factors must be provided to carry loads as specified and to meet both on and off road (if applicable) requirements and speed as set forth under "Performance Test and Requirements."

All steel welding shall follow American welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding shall follow American welding Society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding shall follow American Welding Society B2.1-2000 requirements for structural welding of sheet metal. Flux core arc welding to use alloy rods, type 7000, American welding Society standards A5.20-E70T1. Employees classified as welders are tested and certified to meet the American Welding Society codes upon hire and every three (3) years thereafter. The manufacturer shall be required to have an American welding Society certified welding inspector in plant during working hours to monitor weld quality. The manufacturer shall also be certified to operate a Quality Management System under the requirements of ISO 9001. These standards sponsored by the international organization for Standardization (ISO) specify the quality systems that shall be established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance shall be included with the bid. **An exception to this requirement shall not be acceptable.**

PERFORMANCE TESTS AND REQUIREMENTS

All performance and road tests shall conform to the current edition of NFPA 1901 by a qualified testing agency in accordance with their standard practices for fire apparatus. The contractor shall furnish copies of the Engine Manufacturer's current Certified Brake Horsepower Curve and the Manufacturer's Record of Construction Details.

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FAILURE TO MEET TESTS

In the event the apparatus fails to meet the test requirements of these specifications on the first trial, a second trial may be made at the option of the proposer 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 shall be cause for rejection. Permission to keep and/or store the apparatus in any building owned or occupied by the purchaser shall not constitute acceptance of same.

PERFORMANCE BOND, 2 YEARS

The successful bidder shall furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond shall be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Bumper to Bumper warranty period included within this proposal. Owner agrees that the penal amount of this bond shall be simultaneously amended to 100 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type shall not exceed two (2) years from the date of such satisfactory acceptance and delivery, or the actual Bumper to Bumper warranty period, whichever is shorter.

BID BOND

All bidders shall provide a bid bond as security for the bid in the form of a 10% bid bond to accompany their bid. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond shall include language, which assures that the bidder/principal shall give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic TWO (2) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. If the successful bidder does not manufacture the chassis, the bidder shall supply a warranty bond, in addition to their performance bond, along with their signed contract. This

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warranty bond shall guarantee all terms and conditions of the Basic TWO (2) Year Limited Warranty and names both the bidder and chassis manufacturer as co-principals. This warranty bond shall be issued for the contract amount and shall remain in force for a term which is consistent with the term of the Basic TWO (2) Year Limited Warranty. Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle shall apply only to the TWO (2) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle shall not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision shall prevail.

PRICES AND PAYMENTS

The bid price will be F.O.B. Destination, on a delivered and accepted basis at the 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, will automatically be cause for rejection. Bidder will compute pricing less federal and state taxes. It is understood that any applicable taxes will be added to the proposed prices, unless the purchaser furnishes appropriate tax-exempt forms.

APPROVAL DRAWINGS

Detailed drawings of the actual apparatus being bid are required to be submitted with the manufacture's bid package. NO EXCEPTIONS ALLOWED. This requirement is to ensure that each bidder understands what the WHFs-TDC anticipates purchasing. The purchaser will approve detailed blue prints. The purchaser, manufacturer's representative and the apparatus manufacturer will each have a copy of this blue print. Upon purchaser's approval, this print will become a part of the total contract. Drawing will show, but is not limited to the following:

- A. Model
- B. Cab and Chassis
- C. Wheelbase
- D. Turning Radius
- E. Drive train – proposed engine/transmission
- F. Height – Ground to entry step
- G. Seating

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- H. Front bumper configuration – top and front view
 - I. Emergency lighting/siren/air horn configuration
 - J. Scene lighting
 - K. Body Related
 - a. Seating
 - b. Compartment layout – both interior/exterior inclusive of shelf configurations
 - c. Emergency/scene lighting
 - d. Height – Ground to entry step d.
 - e. Overall Vehicle length (inclusive of bumpers)
 - f. Vehicle height
 - g. Body length
 - h. Cab length

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DELIVERY TIME / DELIVERY DAY COMMITMENT

Each bidder will 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. Upon contract signature the vehicle completion date will be defined. Vehicle completion date is defined as when the completed vehicle will be ready to leave the manufacturer. Hence, the only pending actions once delivered to the dealer are related to dealer vehicle preparation and equipment mounting. Should there be delays in completing the vehicle at the manufacturer; a credit will be applied against the final customer's invoice. The credit amount for each calendar week delayed will be \$100.00 USD

DESIGN CRITERIA

All bidders shall provide a list of the company, manufacturing location, and engineering source for each individual major component, including but not limited to the cab assembly, the chassis assembly, body and electrical system. The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association to include **equally distribute the curbside to street side payload to the maximum degree possible**. The bidder shall make accurate statements as to the apparatus weight and dimensions

APPROVED PAINT FACILITIES

All painting done on the apparatus shall be done in facilities that are registered with the federal government signifying that they comply with all applicable EPA guidelines regarding toxic waste control. Failure of the company to produce proper documentation showing that they comply shall be cause for rejection.

Vehicle paint color will be red to match the existing fleet. All bodies and applicable parts will be painted before being assembled. The exterior body paint finishing process is as follows:

- A) Manual Surface Preparation
- B) Chemical Cleaning and Treatment
- C) Sealer Primer Coat
- D) Topcoat Paint

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After the cab and chassis is in, and body is painted, the color will be verified to make sure that it matches the color of the cab and the existing fleet. All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish-painted after assembly will be finish-painted before assembly

PERFORMANCE TEST AND REQUIREMENTS

VEHICLE STABILITY

The height of the fully loaded vehicle's center of gravity, front to rear weight distribution of the fully loaded vehicle, and minimum front axle loads under all loading conditions, shall be within the limits set by the bidders engineering department. The delivered apparatus shall have a certified GVWR weight sticker applied to the vehicle upon delivery to assure the apparatus meets all requirements pertaining to the weight carrying capacity of the vehicle.

APPARATUS PERFORMANCE

A road test shall be conducted with the apparatus fully loaded and a continuous run of twenty five (25) miles or more shall be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts, and rear axle shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Any check engine or vehicle safety warning indicators displaying and error/fault condition will not be accepted.

NFPA 2016 STANDARDS

This unit shall comply with the NFPA standards effective January 1, 2016, except for fire department specifications that differ from NFPA specifications. These exceptions shall be set forth in the Statement of Exceptions. Certification of slip resistance of all stepping, standing and walking surfaces shall be supplied with delivery of the apparatus. All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points shall be identified on the customer approval print and are shown as approximate. Actual location(s) shall be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. A plate that is highly visible to the driver while seated

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shall be provided. This plate shall show the overall height, length, and gross vehicle weight rating. The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications. An official of the company shall designate, in writing, who is qualified to witness and certify test results. Apparatus proposed by the bidder shall meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications shall be indicated in the proposal as "non-NFPA".

GENERATOR TEST

The generator shall be tested, approved, and certified by Underwriters Laboratories at the manufacturer's expense. The test results shall be provided to the Fire Department at the time of delivery.

TAXES

The bid price shall not include any local, State, or Federal taxes. The Bidder shall not be liable for any State or Federally mandated tax or program after the sale of this apparatus.

LIABILITY

The successful bidder shall defend any and all suits and assume all liability for the use of any patented process, device or article forming a part of the apparatus or any appliance furnished under the sales contract.

INSURANCES

COMMERICAL GENERAL LIABILITY INSURANCE

The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance: Each Occurrence: \$1,000,000 Products/Completed Operations Aggregate: \$1,000,000 Personal and Advertising Injury: \$1,000,000 General Aggregate: \$2,000,000 Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include

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Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy shall include Owner as an additional insured when required by written contract.

COMMERICAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder shall, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage shall be written on a Commercial Automobile liability form: Each Accident Combined Single Limit: \$1,000,000.

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance: Aggregate: \$3,000,000 Each Occurrence: \$3,000,000 The umbrella policy shall be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies. The required limits can be provided by one (1) or more policies provided all other insurance requirements are met. Coverage shall be provided by a carrier(s) rated A- or better by A.M. Best. All policies shall provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions. Bidder agrees to furnish owner with a current Certificate of Insurance with the coverage listed above along with the bid. The certificate shall show the purchaser as certificate holder.

PRODUCT LIABILITY INSURANCE

The manufacturer shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance: Each Occurrence \$1,000,000 Products/Completed Operations Aggregate \$1,000,000 Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form. The manufacturer's policy shall include the owner as additional insured when required by written contract between the Owner and a manufacturer's e authorized dealer.

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LOCAL REPRESENTATION

To assure the purchaser that prompt, professional and accurate representation is made on behalf of the manufacturer, a factory authorized dealership within a reasonable distance from the purchaser shall be licensed by this state to sell vehicles. This dealership shall be competent and knowledgeable with respect to the sales and service of the emergency apparatus that the manufacturer produces. The local dealership shall attend all contract review meetings, preconstruction meetings, inspection trips, and completed unit delivery to the Purchaser.

TRAINING PROGRAM

The successful bidder shall provide an on-site program for training of Fire Department personnel. After the unit has been accepted, the successful bidder shall supply a factory trained, qualified Field Service Technician for a minimum of (4) hours with 4 sessions. This program shall be designed to assure complete understanding of all Operations/Maintenance aspects of the vehicle. Based on the Buyers training schedule, this training duration may be separated over a flexible schedule of days/evenings and weekends. The training program shall be designed to instruct the individual(s) on the Operations/Maintenance of this specific apparatus. The individual will be thoroughly taught the operating systems of the vehicle and Introductory service skills.

The highlights are as follows:

- A) Operation of all controls inside cab, sliders, and function of the body, both interior and exterior.
- B) Explain operations of the Engine/Transmission/Generator.
- C) Troubleshooting will be emphasized and reinforced continually throughout the training period.
- D) Preventative maintenance procedures shall be set up and definite schedules developed to assure proper maintenance of the apparatus.

SERVICEABILITY REQUIREMENTS The Purchaser places a very high priority on service. All bidders shall therefore provide complete details of their ability to service the apparatus proposed, including but not limited to the following:

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PRE-CONSTRUCTION CONFERENCE

A meeting shall be held at the on local location in West Haven, CT. within 45 days after the contract has been executed. The meeting schedule is intended to support the equivalent of (1) full working days. During this activity all specifications, details, drawings, questions and engineering work will be reviewed and approved by the Purchaser. This meeting shall not in any way delay the construction of the apparatus. All expenses for transportation, meals and lodging for the manufacture's representative(s) will be covered by the bidder/manufacture. The meeting shall be held prior to the commencement of any work being done on the apparatus. The responsible persons shall be in attendance at the conference to authorize decisions on the behalf of the Purchaser. Should any changes in specification be identified during the meeting, the changes will be documented and proposed to the buyer in writing in the form of an Engineering Change Document. This document will define the change and the related credit/debit resulting from the change in vehicle specification. For this document to be considered an authorization for change, it must be signed by both the Seller and Purchaser prior to the initiation of any changes. It is understood that delays in obtaining approval signatures may delay construction. The schedule (at a minimum) will include the following dates: a) Chassis production start and completion b) Body Fabrication start and completion c) First inspection review d) Body installation on chassis start and completion e) Second inspection review There shall be no exception to the pre-construction meeting requirements.

INSPECTION TRIPS

The bid price shall include two (2) inspection trips. The first inspection review (mid-inspection) shall be for a total for three (3) designated representatives of the Purchaser, the second inspection trip (final inspection) shall be for three (3) representatives of the Purchaser. The inspection shall take place at the factory where the apparatus is being constructed.

The purpose of the trips is for monitoring construction during the build progress and inspecting the apparatus for compliance to contract specifications. The meeting schedule is intended to support the equivalent of (2) full working days. During this activity all specifications, details, drawings, questions and engineering work will be reviewed and approved by the Purchaser. This meeting shall not in any way delay the construction of the apparatus. All expenses for transportation, meals and lodging for a total of three (3) representatives of the purchaser shall be included in the bid price and stated accordingly.

The final inspection trip All expenses for transportation, meals and lodging for a total of three (3) representatives of the Purchaser shall be included in the bid price and stated accordingly. Air travel will be used for site visits in cases where the Sellers site that is greater than 200 miles from the Purchaser's location. The inspection trips will occur at the milestones listed below:

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A) Body installation on chassis start and completion (make this mid)

B) Second inspection review (final production inspection)

Once the first inspection review has been completed, the Seller shall provide weekly photos of the progress. The local dealer's sales representative is required to accompany the members to the factory for these inspection trips. There shall be no exception to the inspection trip requirements

DELIVERY

Apparatus, to ensure proper break in of all components while still under warranty, shall be delivered under its own power to the manufacturer's authorized service center nearest the Purchaser's location for final delivery preparation. If Rail or truck freight delivery is required, a minimum of a 50 mile road test must be completed.

The Purchaser shall review the entire apparatus for compliance to the specifications at the manufacturer's factory or local dealership.

PRE-DELIVERY CHECKLIST

The following shall be completed prior to delivery to the Purchaser: a) Clean and detail: eliminate air and water leaks, remove all metal shavings, tighten and secure any loose hardware, correct all paint scratches or paint chips. b) Check all operations: test acceleration and braking to the current NFPA requirements; check and record turning radius and delivered weight less personnel; eliminate any driveline vibration through all speeds; check HVAC system. c) Electrical: check of all circuits, switches, warning lamps and buzzers; engine gauges in cab and elsewhere on the apparatus. The Purchaser shall be given notice that the apparatus is ready for inspection prior to delivery. It shall be the Purchaser's option to inspect the apparatus at the bidder's local service facility prior to delivery.

INFORMATION REQUIRED AT DELIVERY

Copies of complete operation and maintenance manuals covering the completed apparatus, including but not limited to, the chassis manual, lubrication charts, and fire equipment service information as supplied

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by brand name component suppliers. Engine manufacturer's current brake horsepower curve showing the maximum no-load governed engine RPM. Complete "Manufacturer's Record of Apparatus Construction Details Form", including certified completed vehicle actual weights. A detailed Service Plan. The Service Plan document shall include detailed vehicle Service Requirements to be performed by both the Customer and/or local Dealer. This is to include the respective actions and interval for the action. The interval is to be defined for either hours use of the vehicle and/or elapsed time from delivery on the vehicle (I.E. weekly/monthly/quarterly/annual service). This is to be detailed for the first (5) years of vehicle operation and/or 5,000 or Operation. The format is intended to be in spreadsheet format to allow updates over the first (5) years of the vehicle's life.

MANUALS

Manuals and related documents will be required to properly operate and support components of the vehicle. In addition to the below defined documents, any "OEM" Original Equipment Manufacturers documents for the related installed equipment must be prepared for review during the final inspection process and included in the delivery documents at the time of delivery.

MANUALS – WIRING DIAGRAMS -12 VOLT SYSTEM

Two (2) manufacture's master wiring diagrams showing the manufacturer's complete electrical system AS BUILT, circuit breaker panel layouts, and individual schematics for each separate circuit, shall be submitted at the time of delivery. The diagrams shall include the circuit breaker panel layouts, primary electrical system, and individual schematics for each separate circuit.

MANUALS –ELECTRICAL WIRING MANUALS – 110 VOLT SYSTEM

Two (2) manufacture's master wiring diagrams showing the manufacturer's complete electrical system, circuit breaker panel layouts, and individual schematics for each separate circuit AS BUILT, shall be submitted at the time of delivery. The diagrams shall include the circuit breaker panel layouts, primary electrical system, and individual schematics for each separate circuit.

MANUALS – "AS BUILT" PARTS MANUALS

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Two (2) "as built" parts manuals, each complete with detailed bills of material, assemblies, sub-assemblies, piece parts used to build the chassis shall be organized sequentially specific modules relating back to the bills of material. Each reference page shall contain the serial number of the chassis, the date the reference page was printed, the bill of material description and the page number. Additionally, each illustration shall have a reference number and each part number shall identify the manufacturing and vendor part number as applicable.

MANUALS – ENGINE AND TRANSMISSION

A set of two (2) engine manufacturer produced manuals, one (1) parts and one (1) service repair shall be included with the vehicle documentation upon delivery. A set of two (2) manufacturer transmission produced manuals, one (1) service parts and one (1) workshop repair shall also be included.

MANUALS – OPERATOR MAINTENANCE AND WARRANTY

Two (2) highly detailed and comprehensive manuals shall be presented and reviewed with the Fire Department(s) authorized acceptance prior to vehicles delivery. Each manual shall depict: a) Chassis Component Operating Procedures b) Maintenance Requirements (Intervals & Procedures) c) Manufacturer's Warranty Registration d) Warranty Coverage & Claims Procedures Manuals shall be delivered with vehicle e) Warranty Coverage for engine & transmission f) Optional extended warranty.

MANUALS- SERVICE PLAN

At the time of delivery, the Bidder shall present a detailed Service plan for the vehicle. This is to include the factory required service and respective intervals for the first five years of service life. This is to detail the service expectations of both the "Buyer" and local Service Facility.

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Section 6- Specifications

6.1 General Chassis Specification

- A. Model: Freightliner Chrome Package M2-106 cab and chassis
- B. Model Year: Current year at time of build
- C. GVWR: TBD
- D. Engine: Current Cummins at time of build
- E. Engine cooling: HD extended life to -30
- F. Fan clutch: Automatic with manual switch mounted on dash
- G. Emissions: Emissions cert. 50 state CARB exempt fire
- H. Alternator: TBD
- I. Battery (2) maintenance free GR31
- J. Speed limit: 70
- K. Transmission: Allison automatic TBD, with PTO provision last gear lock out
- L. Shifter: Push button shifter with mode button
- M. Brakes: Air
- N. Emergency brake control: Air brake control to be mounted in dash accessible to both driver and officer in case of a driver medical emergency
- O. Steering: Power with reservoir
- P. Wheelbase: TBD
- Q. Axle front: TBD
- R. Front suspension: Taper leaf with shock absorbers
- S. Axle rear: Single TBD
- T. Rear suspension: Taper leaf with shock absorbers
- U. Frame: Rail and cross member
- V. Battery disconnect: Cab mounted outboard driver seat
- W. Tires: Michelin XZE2 12R22.5
- X. Tires: Michelin XZN2 12R22.5
- Y. Wheels: Alcoa ULA polished aluminum all wheels
- Z. Front bumper: 3-piece chrome steel with collapsible ends

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- AA. Fuel tank: 50 gal rectangular polished aluminum mounted on driver's side (LH)
 - BB. DEF tank: TBD gallon size mounted on driver's side (LH)
 - CC. White (clean) water tank: 50 gal to be mounted on officer's side (RH) on cab in place of battery box that will be relocated to body
 - DD. Mirrors: Dual West Coast bright stainless finish heated with LH and RH power remote mounted on cab doors with LH and RH remote and heated 8" bright stainless finish convex mirrors
 - EE. Interior trim: Carbon with black accent, black floor mats
 - FF. Climate control: Heater, defroster, air conditioner with recirculation switch and 4 speed fan switch
 - GG. Driver seat: Fire service high back air suspension with lumbar support and armrest
 - HH. Officer's seat: Fire service high back non air suspension with lumbar and armrest with underneath compartment and wired for 2 way radio dept supplied
 - II. Seat belts: Fire service high visibility orange with driver and officer indicator light and audible alarm
 - JJ. Seat cover: Gray vinyl with supplied heavy duty seat covers
 - KK. Door locks: Electric, key same as ignition (4 sets)
 - LL. Windows: LH and RH powered and tinted
 - MM. Power outlets: (2) 12 volt mounted in dash
 - NN. Cup holders: (4) 2 mounted in dash and 2 mounted in center
 - OO. Instrument panel: Factory set gray panels with black gauge bezels
 - PP. Steering column: Telescoping and adjustable tilt
 - QQ. Windshield wipers: Single electric motor with delay switch to be mounted on steering column
 - RR. Cab color: Red to match existing fleet

Rear Bumper

A rear bumper will be provided with the vehicle. The bumper will be a minimum of 3" high with a minimum 10" top deck covered in 1/8" NFPA diamond plate for walking. The bumper will be made with 45-degree chamfers on the back outside corners.

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Operation and Accessibility of Controls

The operation and accessibility of controls will be within the physical means and the ergonomic ability of a human of average stature.

Body

The Modular Custom Body will be completely designed and manufactured in-house and will be an all-aluminum body manufactured utilizing aluminum alloys capable of carrying the maximum payload allowed by the chassis. All framing and structural supports will be welded in accordance with the current standards in the American Welding Society Code. The body will be attached to the chassis with hardened steel "U" bolts fastened to the chassis and body mounting rails. A mounting cushion will be installed between the modular body and the chassis frame. The body will be designed and constructed to insure a life expectancy of more than 20 years with normal use.

The body will also include the following features:

- Welded 3/16 Stainless wheel wells with mud flaps
- All body trim pieces, hinges, and handles will be stainless steel or other non corrosive material
- All exterior fasteners such as machine screws, bolts and sheet metal screws will be stainless steel

Toilet System

The body will also include an outside accessible enclosed area to house an internal toilet system. The toilet system will include paper towel holder, toilet paper holder, stainless steel sink, mirror poly fresh water tank, poly black/gray water tank for waste with manual dump, Heaters for fresh, black/gray water tanks. Garden hose connection rear of unit with A on-demand electric pump and plumbing from poly fresh water tank. This will also include an on-demand hot water unit.

Roof Structure

Roof structure will be an aluminum formed roof truss system designed to maximize strength with cross members welded in place on 16" centers, with the exception of around the rooftop air conditioners and rooftop air vents. All roof trusses will be welded in place to the edge extrusions and to other beams. Substructure bracing for aluminum tapping

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plates of sufficient size and strength will be welded in place for equipment racks, masts, HVAC platforms, grab handles or other body components as needed.

12VDC Alternator

The generator will be equipped with a 12VDC alternator that will be wired to charge the modular body battery as well as satisfy all 12VDC systems of the generator.

HVAC

Three (3) Dual air conditioner/heat units will be roof-mounted units rated TBD per final design. An HVAC ducting system will be installed to provide consistent cooling throughout the vehicle. The ducting system will be insulated and is an integrated part of the ceiling structure. 2" X 8" aluminum tubing will be used for supply ducting to create a common supply. This system can deliver conditioned air and heat from any unit that is running to any supply vent in the vehicle. In case of failure this allows the remaining units to keep the whole truck supplied with conditioned air. The return ceiling grilles will be located opposite of the supply ducts. All ceiling grilles will be adjustable. There will be a wall mounted thermostat.

The air conditioners are equipped with condensation pumps to drain condensation through drain tubes integrated into the structure of the body, eliminating water run-off onto the roof and sides of the mobile command vehicle.

One 110v wall mounted heater rated at 3000 BTU will be installed in the bathroom.

Interior

The walls will be insulated with minimum 2" sprayed in two-part polyethylene insulating foam providing an R-12 value. The insulation will be covered with 3/8" plywood and screwed to the aluminum wall structure.

Floor Structure

The cross section of the floor is as follows:

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- ½" Neoprene spacer glued in place on top of the chassis frame rails.
 - Body floor structure will be welded to two 4" x 8" aluminum I-beams for maximum stability. This creates a flat floor interior and maximizes underbody compartment capacity.
 - A 1/16" aluminum sheeting on the bottom of the body floor structure is welded in place, then completely sealed between each tube section using a urethane sealant to provide a moisture barrier before the sub-floor is installed.
 - A polyethylene insulating 2" foam will be sprayed in place between floor structure tubing members.
 - The sub-flooring is ¾" Okume 10-ply; void free plywood screwed in place to the floor tube structure. Each fastener location is countersunk, treated with body filler, and sanded to a smooth even finish.
 - The floor will be finished with black heavy-duty vinyl flooring. An 8-foot-wide material will be used to eliminate seams in the finished floor.

Door Construction

The doors will be fabricated by design of the manufacturer. Doors are to be installed with 3" continuous stainless-steel hinges. All door hardware will be fully adjustable to maintain a perfect alignment throughout the life of the vehicle. The entry and rear door locking doors will have a minimum width of 29" with a minimum height of 6 feet and include heavy-duty spring loaded devices to keep the door open or closed as required.

Door Jams

A full width formed stainless steel rub strip threshold will protect the top and front of the door entry.

Ceiling

The ceiling will be insulated with minimum 2" sprayed in two-part polyethylene insulating foam providing an R-12 value. 3/8" marine grade plywood will be applied to the bottom of the roof structure and finished with gray colored commercial grade non-static sound absorbing material that matches the interior walls.

Cabinets

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Interior cabinets will be constructed of aluminum panels, aluminum extrusions and zinc plated, aluminum or stainless-steel fasteners. No rivets will be used. The principal walls, shelves and frames will be fabricated from aluminum and pre-punched with all required assembly and mounting slotted holes. Latches will be a full width extruded pull handle with integrated self-latching mechanisms that allow one hand unlatching and opening on the entire width of the panel. The finish will be a polyester powder coat, color TBD. Drawer slides will be all steel double carriage ball bearing, full extension slides capable of withstanding 234 lbs. loading per drawer. Doors are formed to a 1" thickness from a single sheet of aluminum.

Work Surface Construction

The work surface construction will include a $\frac{3}{4}$ " plywood top with $\frac{5}{8}$ " build up below 1 $\frac{3}{8}$ " deep for attachment of black rubber bullnose trim to the front of the console. Top to be white spectrum laminate glued in place to finish the countertop surface.

Rehab Area

Drawing Supplied by Vendor with Bid

Bathroom

Drawing Supplied by Vendor with Bid

To include Toilet, sink, paper towel & toilet paper holders, soap dispenser, trash can. Bathroom to be far forward on curb side with access door from the outside and additional inside pocket door, if possible, with pocket door. Both doors lockable from the inside.

Communications Wiring Raceways

A typical 3 $\frac{1}{2}$ " x 4 $\frac{3}{4}$ ", painted (gray) steel cable raceway will be installed above consoles and in the upper corners of the walls and roof, from the equipment racks throughout the truck to provide for communication cabling to the workstations, conference.

Rear FMVSS Lighting

The rear (D.O.T.) LED lighting will consist of the following:

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- Two (2) Whelen®, Model M6BTT, red LED stop/ tail lights
 - Two (2) Whelen, Model M6T, amber LED arrow turn lights
 - Two (2) Whelen Model M6BUW, LED backup lights

The lights will be mounted in polished combination housing.

The marker and clearance lights will be Truck-Lite, LED light fixtures.

Truck-Lite NYK-77 anti-corrosive will be applied to lamp-plug interfaces.

Generator

A 120/240VAC 60 Hz water-cooled diesel-powered (TBD) generator will be provided. The generator will be mounted on rubber isolators. The generator and muffler will be mounted as required to suppress sound and vibration. The generator will be located on the driver side of the vehicle.

- The generator will be equipped with sensors that will activate the generator shut down system on low oil pressure and high-water temperature.
- The generator will be equipped with an engine block heater if available from the generator manufacturer as an OEM feature.
- The generator will include a remote Start/Stop preheat switch and hour meter located in the modular body power distribution panel and inside the cab.
- Fuel supply for the generator will be from the chassis fuel tank.
 - The system will be designed and installed to leave a minimum of 10% of fuel in the tank when the generator runs out of fuel.
 - The batteries will be charged by a converter/charger. The system batteries are protected by a 300 amp in-line fuse.

Battery Parallel System

The system batteries are isolated from vehicle batteries and can be paralleled when necessary to assist in starting the vehicle or generator. There will be a momentary switch located on the vehicle cab console and one in the modular body power distribution panel. This switch will combine both battery banks for 5 minutes.

Power Converter/Charger

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One 120VAC to 12VDC Progressive Dynamic marine grade 100-amp power converter will be provided to support the 12VDC electrical load and charge the batteries during generator or shore power operations

120/240 VAC A Line Voltage Wiring

Wire sizes will be determined per circuit requirements and in accordance with the National Electrical Code. All 120/240VAC wiring will be routed through cable raceways.

All wiring and associated equipment will be tested by the manufacturer and quality assurance personnel. Electrical polarity verification will be made on all permanently mounted equipment and receptacles.

Power Distribution Panel

The Power Distribution Panel will consist of a custom designed anodized aluminum panel with white laser etched descriptions for every breaker and switch. The panel is equipped with 120/240-volt, 50 amps, single-phase, three-wire system that has appropriately sized circuit breakers.

An Analog Frequency/Amps/Voltmeter is located on the main power distribution panel. A surge suppression device that meets the requirements of ANSI and IEEE will be installed per phase located in the power distribution enclosure. Other appropriately sized circuit breakers will be installed for 12V DC applications.

A manual power transfer switch will be installed in the electrical distribution panel for selection of either generator power or shore power. The transfer switch will switch both hot legs and the neutral keeping all power sources isolated.

The panel will also contain DC meters for monitoring voltage and generator hours. A generator remote start/stop switch and Line Alive indicators for shore power, generator and night service will be provided.

The panel is hinged to provide easy service entrance for maintenance.

External Shore Power Input Connector

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An external power inlet, Hubbell 50A 125/250V, 3 pole 4 wire Twist-Lock will be installed on the curb side of the modular body. The stainless-steel shore power inlet has a self closing cover so that the interior is shielded from the elements when not in use. It is watertight when the cover is securely fastened.

120 V AC Outlets

At minimum Twelve (12) 120VAC/USB duplex outlets will be installed in the interior. Location TBD.

Three (3) 120VAC GFCI duplex outlets with weatherproof covers will be installed on the exterior curbside; each exterior duplex will be on separate circuits.

One (1) 120VAC GFCI duplex outlets with weatherproof covers will be installed on the exterior driver side; each exterior duplex will be on separate circuits.

12 V Lighting (Interior)

12-volt ceiling mounted 12 white/red dimmable light fixtures with switches will be installed in the interior areas. These lights will be individually switched in zones or at the electrical Power Distribution Panel.

12 V Lighting (Exterior)

Six (6) Whelen M9 series LED exterior scene lights with chrome flange will be installed on the exterior of the vehicle, with two (2) curbside, two (2) street side and two (2) on the rear.

The two on the rear will also serve as back up lights that will be activated along with the standard reverse lights when the transmission is placed in the reverse gear.

Six (6) Whelen M9 series super LED red with clear lens and chrome flange two (2) curb side two (2) street side and two (2) on the rear.

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The scene lights will be two-way switched from the electrical control panel or cab dash. There will be a Command led light tower mounted forward on top of the module with hand control.

- Federal Electronic Q siren or Mechanical Q mounted on the front bumper.
- Whelen siren 295 mounted in the cab with a 100 watt speaker will be mounted in the front bumper and add an extra microphone in the communication center for the PA system.
- Each exterior compartment will have a 12VDC LED lighting.
- All compartments have weather strip gaskets around the full perimeter of the doors, and non-skid material installed on the sills.
- All compartments include locking two stage rotary latches with stainless steel paddle-type handles and dual "Nader Pins" for secure closure. All compartments will have automatic DC LED lighting.
- All storage compartments will have a small circular filtered air vent in the upper rear corner to allow moisture to escape.
- All compartments include heavy duty gas shock closers, one installed per door.

Oxygen Compartment

Storage for portable "D" Oxygen bottles will be provided in lieu of an on-board system.

Electrical

12V Voltage Wiring

All DC wires will be heat resistant type that meets SAE J1128. The wires will be loomed and routed the maximum distance away from possible high heat sources and properly clamped to body or frame members to preclude chaffing on other components.

Where holes are cut in the body structure for wiring, they shall have the whole circumference grounded and filed smooth and rubber grommets shall be installed. The wires are labeled every 3" with number and function. All wires and cables shall be marked at each end with a function number that is documented in the DC schematic and described in the wire list.

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Battery cables are sized to match the OEM cables with crimped terminals and a black shrink tubing protecting the negative terminals and red for the positive terminals. There will be a negative and positive lug mounted for easy access to jump start the vehicle with rubber color caps red for positive, black for negative.

Modular Battery System

The modular body will be equipped with a dual battery system. Two Group 31 lead acid batteries with a minimum of 210-amp hours are used to support the modular body.

Generator Compartment

The generator compartment will be designed and constructed from 3/16" aluminum sheet, continuously welded to prevent carbon monoxide intrusion into the user area of the vehicle. The floor of the compartment will be reinforced to withstand a minimum static load of 1000 pounds. This requirement is needed to support the generator and all related equipment.

Air flow through the compartment is critical to the extended operation of the generator in high ambient temperature conditions. Fresh air intake and exhaust are located to provide maximum air flow while minimizing noise. Air louvers that are exposed to the exterior painted surfaces of the vehicle will be custom designed.

The compartment will be lined with thermal and acoustical insulation to minimize thermal and audible intrusion into the personnel area. The thickness will be 1 1/2" inches minimum and will be bonded to the generator compartment walls and ceiling.

The compartment will be lighted by a minimum of two led compartment lights. All 12 VDC circuits and battery cables will be protected in high temperature loom and supported. All high voltage wiring will be run in flexible conduit properly sized to handle the circuits and cables.

Service points will be readily accessible and not blocked by added equipment or devices. An oil drain system will be included to prevent drain oil from entering the compartment

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and provide a secure shutoff and drain hose extension system. Fuel filters will be accessible for servicing.

Battery Compartments

The battery compartment will be constructed from 3/16 aluminum sheet, continuously welded to prevent battery gas intrusion into the user area of the vehicle. Vent fittings will be installed on the inboard side of the compartment.

Storage Compartments

Storage Compartments will be installed on the street and curbsides of the modular area body and will be a continuously welded all-aluminum design. The compartment will be fabricated from aluminum sheet and be a barn door design. These compartments will offer quick access for easy service and maintenance from the exterior of the vehicle.

Door Handles

The door handles will be stainless steel to include locking two stage rotary latches with paddle-type handles and dual door striker pins for secure closure.

Hinges

All exterior hinges used for entry and compartment doors will be stainless steel, continuous, piano type, with a 3" open dimension with a 1/4" diameter hinge pin. Hinge mounting holes will be slotted to allow door adjustment in two planes. Holes will be drilled and tapped in door and jamb extrusions to accept stainless steel fasteners protected with an anti-corrosion material.

Gaskets

The passenger and compartment door gaskets will be designed to match the door jamb extrusions. The gaskets will be extruded from a material designed to satisfy use in extreme ambient temperatures. There will be no interruptions in the gasket for door locks, latches, or hinges.

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Door Window

Each entry door will have a tempered tinted glass sliding lockable window with removable cover.

Entry Steps

A fold out/ flip down entry step system will be provided behind each dedicated door below the entry and rear doors. The step system door will match the storage doors in the body.

The steps are constructed of 1/8" NFPA aluminum diamond plate welded to 1/4" aluminum side wall supports. The steps are illuminated with (2) 12V LED lights installed in the front faces of the upper steps.

A stainless-steel full width formed angle will be installed on the entry and rear step doors. This surface will protect the doors from wear that the fold out step deployment may cause.

A removable set of stairs will be provided for the exterior entrance to the bathroom.

Grab Handles

For side and rear entry step safety, two 1 1/4" non-slip grab handles with rubber inserts that meet NFPA 1901 will be installed. One will be installed vertically on the modular body at the opening side of the entry door, and one will be installed on the inside of the door at an angle appropriate for exit matching the pitch of stairs.

Roof Skin

A roof that can be walked on and utilized for observation and equipment mounting is provided. Therefore, a minimum of 1/8" NFPA aluminum diamond plate will be utilized and will be continuously welded around the perimeter. Roof will have fold down railings for safety.

Wall Structure

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The wall structure will be designed to incorporate framing around all doors, windows. The design also incorporates the lower compartments and wheel openings into a single piece wall CONstruction, eliminating the need for ADD-on skirts.

Wall Skin

The finished wall skin will be of aluminum material. The finished wall will be free of vertical or horizontal seam lines. The aluminum sheet will be bonded to the wall tubing using a Silane Modified Polymer Adhesive.

All areas between body skin and frames or extrusions are cleaned, sanded and primed with epoxy primer. All door frames to have a seam sealer tape applied as a barrier.

Rub Rails

Bottom edge of the side wall will be trimmed with a bright aluminum extruded rub rail.

The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.

Body Fender Crowns

Stainless steel fender crowns will be provided around the rear wheel openings. These fender crowns will be wide enough to prevent splashing onto the body from the tires.

A rubber welting will be provided between the body and the crown to seal the seam and restrict moisture from entering. A dielectric barrier will be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.

Stone Guards

Diamond plate stone guards will be fabricated out of diamond plate sheets. Diamond plate stone guard skins will be installed full width on the front and rear of the body, table or other locations as needed. The raceway covers will be removeable to provide easy access to the wiring. Wiring installed in the raceway will be neatly bundled and secured.

Securing the Interior

WEST HAVEN FIRE SERVICES



Various methods will be provided for positively securing all drawers, tables, TV, chairs, doors, or other items within the interior of the unit.

Smoke and CO Detectors

The modular body will be provided with smoke and CO detectors, per zone (2 total), powered by the 12-volt system.

Air Filtration

Air filtration system for interior will be included.

Door Alarms

An audible and visual warning shall be installed in the cab and activated when ignition is turned on and any compartment, personnel, or cab door is open. The warning is also activated when any deployable equipment is deployed, including but not limited to mast, awning, satellite antenna and stabilizer jacks.

Fire Extinguishers

Two (2) five (5) pound fire extinguishers - one in cab and one in body.

Road Safety Kit

Reflective warning triangles shall be included, located in a storage compartment.

ADDITIONAL INCLUDED EQUIPMENT

A list of all additional included equipment must be provided to allow for consideration of vehicle preparation, materials and labor for installation and integration. The following shall be included in this bid:

- Built in trash receptible in Rehab area
- Zico collapsible ladder
- Grey water tank poly
- Exterior spigots- 1 on curb side & 1 Rear on demand electric
- Refrigerator (commercially available, no custom) located far forward on street side (size determined a pre-conference)
- Microwave (commercially available, no custom)

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- Commercial coffee maker located far forward to the LH side of bathroom with cabinets above with lockable doors.
 - Large Exterior Accessible Compartment with refrigerator (for bottled water)
 - Exterior Cameras to monitor 360 degrees around the apparatus while parked
 - Exterior PA system for public information with 360 sound projection, controlled from cab and interior administration area
 - Awning Electric 12V on both curbside and driver side and rear
 - Manual add on sides for weather protection
 - Modular Work Area:
 - 2 Person countertop
 - Area prewired for (2) department mobile radios, (2)115V outlets, and USB with USB-C ports
 - 2 chairs with positive locking devices when apparatus in motion
 - Cabinets above with lockable doors keyed alike
 - IT/Comms Needs
 - Location with associated power & wiring for Printer/Scanner
 - Ethernet drop at each power outlet 2X
 - Server Cabinet- Full height- 20" length, to accommodate standard 19" rack for future use located between work station countertop and refrigerator, lockable with cooling fans and prewired for future IT use.
 - Rear of the vehicle will consist of bench seating on either side, with seating for 6 on curb side and 8 on street side for personnel, with a slide out on both sides.
 - A removable conference table with built in legs posts for center of the area, size TBD at preconference.