



Gilford Fire-Rescue

Stephen M. Carrier, Chief Bradley A. Ober, Deputy Chief

Community, Safety, Professional Service

GILFORD FIRE-RESCUE DEPARTMENT SPECIFICATIONS FOR ENGINE January 4, 2023

Intent of Specifications

It is the intent of the Gilford Fire-Rescue Department to purchase a 1,500 gpm Attack Pumper, with the view to obtain the best results and the most acceptable vehicle for service within the department. These specifications cover the general requirements as to capacity and capability of the vehicle. Some certain details such as but not limited to finish and lighting have been provided. Wherever specific detail has not been provided the bidder must submit the detailed information as to how the vehicle construction is handled. These specifications are intended to provide a common standard to which all parties may bid, with the understanding that there are different materials and methods for fabricating the vehicle. Therefore it is of vital importance that the bidder supply as much detail as possible on the materials and methods to be used to allow all bid proposal to be evaluated equally.

Qualification of Bidders

Bids will only be considered using manufacturers in the continental United States that have an established reputation of permanency and reliability in the field of emergency apparatus construction. Each manufacturer shall furnish satisfactory evidence of his ability to construct the apparatus as specified, and shall state the location of the factory where the apparatus will be built.

Service Requirements

To insure proper service, no bid will be accepted unless the bidder owns or offers facilities within 150 miles where complete parts and service are available. The facility must be staffed by full time personnel who are factory trained in the operation and repair of the emergency apparatus, with full authorization of the manufacturer. The facility shall maintain a complete inventory including body components, electrical items, apparatus hardware, etc., and shall offer services including body fabrication, collision repair, paint shop and pump services.

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Delivery

The apparatus shall be delivered under its own power to assure adequate break-in while under warranty. When the apparatus is delivered, a manufacturer's representative shall train those persons designated by the Fire Chief with the basic operation of the apparatus and its components.

Construction Time

Each bidder shall state the number of calendar days required to construct and deliver the completed apparatus after the delivery of the chassis to the body manufacturer. Minor change orders shall not change the delivery date, and major change orders shall change the delivery date as mutually agreed upon by the bidder and the Chief of the Department.

Terms of Payment

The purchaser will pay for the completed apparatus upon acceptance of the vehicle after delivery. Purchase will be by lease purchased option, Lease information can be submitted along with the bid proposal. Chassis pre-buy or other pre-payments will be considered.

Warranty

The manufacturer shall submit a copy of the proposed warranty.

Exceptions

Substitutions, deviations, clarifications or exceptions to these specifications must be listed on a separate page clearly marked "EXCEPTIONS" and must be accompanied by adequate supportive data to allow the purchaser to determine acceptability.

Blueprints/Approval Drawings

Complete detailed blueprints shall be submitted to the Fire Department for their review prior to awarding of the bid. The blueprints must show the following items:

- Front view
- Both side views
- Rear view
- All compartment dimensions

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- All vehicle lights, scene lights and emergency lights
- View of pump and pump panel
- Overall height and length dimensions

Factory / Dealer Inspection

It is the intent of Gilford Fire-Rescue that a factory visit for pre-construction and final inspection of the vehicle for (3) personnel will be provided.

Evaluation of Bids

Manufacturer's proposal must be submitted to the Gilford Fire-Rescue Department in a sealed envelope marked 2023 Fire Engine Bid. Proposals must be submitted no later than 3:00PM on February 1, 2023. All proposals received will be thoroughly reviewed and a recommended proposal will be submitted to the Board of Fire Engineers for acceptance on Tuesday February 21, 2023 at 8:30AM. The accepted bid price shall remain firm until April 1, 2023.

Method of Award

The Town of Gilford reserves the right to reject any and all bids. Awarding of the bid will not be based completely on price.

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Request for Proposals/Bids 2023 Engine

Gilford Fire-Rescue Department is requesting proposals from fire apparatus dealers/manufacturers for the construction of an "NFPA 1901" compliant engine. In this document are both the minimum vehicle components and the specific components required by the department. Performance requirements must meet "NFPA 1901 Standard for Automotive Fire Apparatus", manufacturer's recommendations, or Gilford Fire-Rescue requirements.

Proposals submitted by the apparatus dealer/manufacturer must be specific in terms of method of construction and specification of materials used.

Gilford Fire-Rescue will thoroughly review each proposal submitted and reserves the right to select or reject any proposal regardless of price.

General Scope of Apparatus:

This fire apparatus will function primarily as an attack engine with rescue capabilities. The Engine must be able to be quickly and easily set-up so that firefighters can effectively attack a fire with a minimum amount of workers. The Engine shall also be configured to allow easy reloading of pre-connected hose loads and carry necessary and specified equipment. Furthermore, the overall length of the apparatus shall be no longer than 32 ft while the height shall be less than 11 ft, 1,000 gallon water tank, 30 gallon foam cell and 1,500 GPM pump.

Chassis - Custom Cab

- Standard 96" width, fully enclosed with 10" raised roof.
- 5-person cab: 2 forward facing in the rear, 1 rear facing (behind passenger).
- IMMI SmartDock SCBA holder at Officer's and all rear seats.
- Cummins minimum 450 hp engine w/Jacobs engine brake (small block).
- Block heater.
- Allison automatic transmission.
- Air disc brakes front/rear.
- Plymovent specific exhaust tip.
- Extended front bumper, steal heavy duty, to support 6" front suction, siren, Federal Q, hose dunnage (150' 1.75" hose and nozzle) with cover, air horns, receiver hitch, anchor points, also to include chevron.



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- Tow eyes mounted in "up" position on the front of the truck. Maximum cab length while maintaining overall length of 32'.
- Mud & Snow tread tires on rear.
- Electric windows for all door windows.
- Heated mirrors, bus style.
- Consideration for Officer's side tablet mounting with power.
- 5 USB ports, location to be determined.
- AM/FM Stereo with Bluetooth connectivity.
- "EMS" inside/outside access cabinet above driver's side front wheel with 120V/12V power, exterior door to be rollup.
- 120V shore power strip.
- Electrical considerations and equipment mounting allowance for cab:
 - Thermal Imaging camera
 - Min. 6 flashlights
 - Air monitoring meter
 - Min. 4 Portable radio chargers
 - Power and antenna provisions for 3 mobile radios
 - Pac tool board on rear wall.
- Heat/AC (maximum btu).
- Raised cab roof, no windows
- All cab seats vinly.
- V-Mux vista display for both driver and officer.
- Low profile dash and doghouse.
- Back up and passenger side camera.
- Galvanized frame rails or other corrosive resistant application.
- Aluminum wheel rims.
- Radio allowance for two Motorola VHF 100 watt mobile radios, installed.
- Air filtering/purifying options.
- On-board compressor to maintain chassis air system while engine off and on shore line power. Provisions for air chuck connection in driver's side forward compartment.
- Allowance for additional storage compartments rear of the cab, doghouse area with LED strip lighting.
- Rear wall of the cab shall be trimmed with 0.13 inch thick aluminum sheet metal, paint color to be determined, also include PAC board outer side of each forward facing seat.
- Dash area shall be constructed of marine grade, 0.13 inch thick aluminum plate.
- Cup holders.



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Pump – Hale QMAX Single Stage

- 1,500 gpm rated pump minimum.
- FRC PumpBoss 400 Pressure Governor.
- 6" suction intake w/NH threads: front bumper w/ swivel (must flow a minimum of 1,000 gpm from draft), drivers side and passenger side pump.
- Ability to prime suction intakes while drafting from another suction intake.
- Integrated intake relief valve.
- Pump enclosure with heater.
- All intakes to have master intake valves.
- Trident Air Primer, main pump and each intake.
- True-piped LDH discharge on officer's pump panel.
- Auxiliary 2 ½" NH thread intake on drivers side.
- 2 ½" NH thread direct tank fill on passengers side.
- Specify all material and grades to be used for plumbing.
- Hose dunnage each side, maximum storage of LDH available.
- Water tank level gauges visible from left, right, and rear, large design on side of cab above pump panels.

Discharges and Pre-connects

(Couplings: 1.5" = NPSH; 2.5" = NH; 4" = Storz)

- (3) 200' 1.75" hose w/ 1.5" couplings, pre-connected single stack crosslays, with ground to base height maximum 66", height of crosslays tray no less than 30", all crosslays foam capable.
- Deck gun, with Extend-A-Gun, Akron Apollo 3426 with valve at pump panel and gun.
- Passenger side (1) 2 ½" with NH thread, (1) 3" minimum with 4" storz connection.
- Drivers side (2) 2 ½" with NH thread.
- 2" front jumpline to bumper with 1 ½" NPSH thread, foam capable.
- Hose bed forward position (drivers side) (1) 3" with 2 ½" NH thread, (1) 2 ½" with NH thread foam capable.

Valves

- Akron Navigator Pro 2.0 electronic valve control with pressure and flow, all discharges.



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- All 6" intakes controlled by electronic valve.
- Discharge valve controllers to be as 'in-line' as possible, our intent is for the pump panel to be as narrow as practical.
- Intake control valves to be in-line together, air primers to be lined up below.
- Specify all valves to be used.

Water Tank

- Minimum 1,000-gallon capacity, Poly Tank.
- 3" fill line and valve.
- 3" tank to pump line and valve.

Foam System

- 30-gallon Hale foam system, with remote fill capability from pump panel.
- Direct injection foam system capable of pumping 5 gpm of foam concentrate.
- Hale EZ-fill foam system with controller and connection point on the officer's side pump panel.

Body and Compartments

- Stainless steel construction.
- Specify all grades of materials to be used.
- Roll-up doors, all compartments.
- Interior compartment lights to be LED, manufactured detailed.
- Roll out tool drawers 250 lb capacity in driver's side pump compartment, lower.
- Roll out tray 250 lb capacity in rear compartment.
- Storage for minimum of 5 SCBA cylinders.
- Through body Duo-Safety ladder storage in rear on passenger side to hold 24' extension, 16'* roof and 10' attic. (*may need to reduce to 14' due to overall length)
- Interior storage for 10' pike poles with various all-purpose heads.
- Storage for 1 long backboard or stokes.
- Compartments to have PAC tool board on rear wall.
- (2) adjustable shelves in each compartment excluding the 'high side' compartments above rear wheels.
- Interior storage for (2) 10' lengths of 6" hard suction.
- Hose bed to be as low as possible/practical.
- 120V outlet in each compartment, shoreline and generator powered.



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- Approximate compartment measurements (full height driver's and passenger side, full depth passenger side):
 - Drivers side front 47" width
 - Drivers side middle 63" width (37" height)
 - Drivers side rear 44" width
 - Rear 44" width (maximum height to hose bed)
 - Passenger side front 47" width
 - Passenger side middle 63" width (37" height)
 - Passenger side rear 44" width

Hose Bed

- Capacity to hold following hose loads:
 - 300' 3"
 - 200' 2½"
 - 300' 2½" dead load
 - 2,000' of 4" LDH, spilt load (1000/1000)
- Adjustable hose bed divider between each load.
- Vinyl black hose bed cover.

Warning Devices

- All warning lights and siren to be Whelen products, with low power mode (daylight sensor), slow flash pattern with air brake, steady burn, etc. Other flash pattern options are to be presented and considered.
- Rear facing and lower body emergency lighting (at rear wheels) shall illuminate when the truck is shifted into reverse.
- Federal Q2B siren pedestal-mounted on the left side front bumper, with siren brake.
- NFPA-compliant light package using LED lights. Light bar with all modules filled with red/clear and (1) Opticom. All body lights to be red in color, (1) drivers side rear facing blue.
 - (2) upper and (3) lower each side
 - (2) upper and (2) lower rear facing (2 upper also on with brake)
 - (4) forward facing above headlights (2 separate turn signals)
- All warning lights with clear lenses.
- Head light flasher.
- LED amber traffic advisor mounted on rear, minimum 36", multi-directional flash; 'on' with emergency lights, shift in reverse and manual switch.



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- Air horns mounted front bumper, switched on the floor for officer, steering wheel and push button driver's side pump panel.

Lights

- Compartment lights LED strip with red/clear option, vendor recommended manufacturer.
- Step and ground lights LED, NFPA compliant, on with door open, air brake and manual shift.
- LED hose bed and pump panel lights.
- Brow light – FRC SPECTRA-MAX 12V.
- Telescoping pole FRC SPECTRA-MAX 12V one each driver's side and passenger side rear of cab.
- (2) Whelen M9 body mount on rear, to come on with reverse and manual switch.
- (2) Whelen M9 body mount, each side of cab, automatic on with open door as well as manual switch.
- (2) Whelen M9 body mount passenger and driver's side upper rear body.
- If Whelen M9 not available propose an alternative, equivalent light fixture.

Paint

- Cab – two color (white over red) PPG color Red 75500; PPG color white 8282.
- Body-all red.
- NFPA compliant chevrons on rear of vehicle.
- Graphics allowance to match existing apparatus.

Miscellaneous

- On-Spot automatic tire chains.
- 5,000-watt minimum Onan hydraulic driven generator with (1) 200' 10/3 cable and 4-gang outlet box cord reel above pump, passenger side. The electrical cable shall be yellow.
- PROMariner battery charger with 120V plug inside driver's door.
- PAK equipment mounting allowance for department supplied equipment.
- Lazy susan for extrication equipment.
- Pre-construction factory meeting as previously outlined.
- Final inspection factory trip as previously outlined.
- Interior and exterior grab handles and coat hooks as recommended.

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AFFADAVIT:

Name: _____

Address: _____

I, _____, authorized agent for _____,
Do hereby attest and affirm that the following information is true and that the proposal our firm
is submitting complies with all the General Instructions, requirements, and specifications
contained in this submission, except where indicated below.

Yes _____ NO _____ 1. The apparatus offered is manufactured by a single source apparatus
builder in North America.

Yes _____ NO _____ 2. The apparatus proposed is not a prototype.

Yes _____ No _____ 3. The performance test shall be performed in compliance with the
specifications and all applicable standards.

Yes _____ No _____ 4. All pages of the General Instruction requirements and Specifications have
been received and reviewed.

Yes _____ No _____ 5. All questionnaires and blanks have been completed and filled in.

Yes _____ No _____ 6. Bid Bond is enclosed.

Yes _____ No _____ 7. Proposal complies with proposal specifications without Exception.

Yes _____ No _____ 8. Proposal complies with design criteria.

Yes _____ No _____ 9. Has included Apparatus Drawings per Specifications.

Yes _____ No _____ 10. Apparatus dimension detailed.

Yes _____ No _____ 11. The proposal provides for training of the fire department as described.

Yes _____ No _____ 12. Are all specified warranties included?

Yes _____ No _____ 13. Are all proposed warranties in compliance with specifications?



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Yes ____ No ____ 14. Is the proposed apparatus and equipment new or a demo?

Yes ____ No ____ 15. Is a complete copy of the detailed proposal included?

Yes ____ No ____ 16. Is a separate list of Exceptions attached?

State the dimensions of the proposed apparatus:

- a. Overall Height: _____
- b. Overall Length: _____
- c. Overall Width: _____

Delivery of the apparatus shall take place within _____ calendar days after the execution and acceptance of a contract.

Manufacturer's Name: _____

Address: _____

Contact Person Regarding Questions: _____

Phone Number: _____ **e-mail address:** _____

Name of Authorized Agent: _____ **(printed)**

Address: _____

Signature of Authorized Agent: _____

Date: _____