TO: Elizabeth Unger, Purchasing Agent  
PH: (617) 349-4310  FAX: (617) 349-4008  
795 Massachusetts Avenue, Room 303  
Cambridge, MA 02139

The undersigned submits this sealed bid to provide the commodity or services identified above, described in the specifications herein and advertised in the Cambridge Chronicle on Thursday, June 13, 2019 which is to be opened and publicly read at the Office of the Purchasing Agent, City Hall, 795 Mass. Ave., Room 303, Cambridge, MA by 11:00 a.m. on Thursday, June 27th, 2019.

This Invitation for Bid may be downloaded from the City’s web site, www.CambridgeMa.gov, Online Services, Purchasing Bid List, Invitation for Bid, File No. 8650. Parking is limited at this location. It is strongly recommended that bids are mailed or delivered in advanced of the due date and time. Late proposals will not be accepted. The time clock on the counter of the Purchasing Department will determine the time of the bid opening.

The undersigned certifies that this bid is made without collusion with any other person, firm or corporation making any other bid or who otherwise would make a bid. The undersigned agrees to furnish the commodity or services in strict accordance with the bid documents, which consist of this Invitation for Bid and all attachments hereto. "The submitted bid must be without conditions, exceptions or modifications to the bid document". The envelope containing the bid must be labeled: "This envelope contains a bid for Refurbishment of Pierce Vehicle for CFD to be opened at 11:00 a.m. on Thursday, June 27th, 2019. The bid and all documents submitted with it are public records.

This bid process and the award of the contract are made in conformity with M.G.L. c. 30B, unless otherwise stated.

This bid includes addenda numbered: __________________________

SIGNATURE OF BIDDER:________________________________________

TITLE OF SIGNATORY________________________________________

ADDRESS OF BIDDER________________________________________

TELEPHONE NUMBER_________________ FAX NUMBER:________

Please check one of the following and insert the requested information:

( ) Corporation, incorporated in the State of:_____________________

( ) Partnership. Names of partners:______________________________

( ) Individual:________________________________________________

Signature of Bidder____________________________________________
GENERAL TERMS AND CONDITIONS

LAWS:
All deliveries shall conform in every respect with all applicable laws of the Federal government, Commonwealth of Massachusetts and City of Cambridge.

EQUAL OPPORTUNITY:
The Vendor in the performance of the contract shall not discriminate on the grounds of race, color, religious creed, national origin or ancestry, age, disability, sexual orientation, marital status, family status, military status, source of income, or sex in employment practices or in the selection or retention of subcontractors, and in the procurement of materials or rental of equipment. The City may cancel, terminate or suspend the contract in whole or in part for any violation of this paragraph.

TAXES:
Purchases made by the City are exempt from the payment of Federal excise tax and the payment of Commonwealth of Massachusetts sales tax (except for gasoline) and any such taxes must not be included in the bid prices.

QUANTITIES:
Unless otherwise stated, the quantities set forth herein are ESTIMATES ONLY. The City reserves the right to purchase the commodity(ies) specified in any amount less than the estimated amount.

BID PRICES:
Bid prices shall include transportation and delivery charges fully prepaid to the City of Cambridge destination. Where the unit price and the total price are at variance, the unit price will prevail.

DELIVERY AND PACKAGING:
Deliveries must be made in such quantities as called for in the purchase order and in the manufacturer's original packages. All deliveries must be "inside" delivery with no assistance from City personnel. Tailgate deliveries will not be accepted. Rejected material will be returned to the vendor at the vendor's expense.

MODIFICATION OF BIDS:
Prior to bid opening, a bidder may correct, modify or withdraw its bid by making the request in writing prior to the time and date for the bid opening. All corrections and modifications must be delivered to the Purchasing Department in a sealed envelope indicating that it contains a modification or correction of the original bid submitted for the particular commodity and indicating the time and date of the bid opening.

REJECTION OF BIDS:
The City reserves the right to reject any and all bids if it is in best interest of the City to do so.

AWARD OF CONTRACT:
Contract(s) will be awarded within forty-five days of the bid opening unless award date is extended by consent of all parties concerned. The continuation of any contract into the next fiscal year shall be subject to the appropriation and availability of funds.

INDEMNITY:
Unless otherwise provided by law, the Vendor will indemnify and hold harmless the City against any and all liability, loss, damages, costs or expenses for personal injury or damage to real or tangible personal property which the City may sustain, incur or be required to pay, arising out of or in connection with the performance of the Contract by reason of any negligent action/inaction or willful misconduct by the Contractor, its agents, servants or employees.

TERMINATION OF CONTRACT:
Except as otherwise provided in the Articles of Agreement, the City may terminate the contract upon seven days' notice.

ASSIGNABILITY:
The Vendor shall not assign, sell, subcontract or otherwise transfer any interest in this contract without the prior written consent of the City.

MATERIAL SAFETY DATA SHEETS: Pursuant to M.G.L. c. 111F, ss. 8, 9, and 10, any vendor who receives a contract resulting from this invitation agrees to submit a Material Safety Data Sheet for each toxic or hazardous substance or mixture containing such substance when deliveries are made. The vendor agrees to comply with all requirements set forth in the pertinent laws above.

Signature of Bidder__________________________________________________
TO: Elizabeth Unger, Purchasing Agent  
City Hall, Cambridge, Massachusetts 02139

The undersigned hereby proposes to furnish and deliver all services and materials for the Refurbishment of Pierce Vehicle for CFD. All labor rates and discounts on parts must remain FIRM during the entire contract period.

The City will award one contract for this Invitation to Bid. The contract will be awarded to the responsive and responsible bidder offering the lowest total price.

Contract will be awarded within forty-five days of the bid opening unless award date is extended by consent of all parties concerned.

A sample contract is attached hereto. The bidder must be willing to sign the City’s contract. The City will not accept a bidder’s terms & conditions.

Living Wage Requirements  
The City of Cambridge has a Living Wage Requirement that establishes minimum hourly rates for all personnel who work inside the City limits. The City of Cambridge’s Living Wage as of March 1, 2019 is $16.15 per hour. The Living Wage Requirements are attached.

Wage Theft Certification  
In Executive Order 2016-1, the City of Cambridge established requirements for City Contract in an effort to prevent wage theft. Prospective vendors must provide certifications or disclosures with their bids/proposals. Failure to provide the certification or disclosure shall result in rejection of the bid/proposal. Please see the Wage Theft Prevention Certification form attached.

PLEASE SUBMIT YOUR BID IN DUPLICATE.

Performance Bond Requirement  
The successful bidder shall provide the City annually with a performance bond securing its satisfactory performance in an amount equal to One Hundred (100) percent of the Total Bid price submitted. The performance bond shall be issued by a surety authorized to do business under the laws of the Commonwealth of Massachusetts and shall be in a form acceptable to the City.

All bids must be accompanied with a commitment letter from a surety confirming bidder’s ability to secure a 100% Performance Bond. The surety shall be authorized to do business under the laws of the Commonwealth of Massachusetts

Questions  
Questions concerning this Invitation to Bid must be submitted in writing and either emailed to purchasing@cambridgema.gov or delivered to the Office of the Purchasing Agent, Elizabeth Unger, City Hall, 795 Massachusetts Avenue Room 303, Cambridge, MA 02139. The deadline for questions no later than Wednesday, June 19th, 2019 by 3:00 p.m. An addendum will be issued posted to the Purchasing website notifying all bidders of the questions and answers.

Please check the website for Addendums before submitting your bid to the City. Bidders will not be notified individually of Addendums.

Confidentiality and Public Record Law  
All bids or other materials submitted by the vendor in response to this invitation to Bid will be open for inspection by any person in accordance with the Massachusetts Public Record Law.

Signature of Bidder__________________________________________________


Bid Results
The tab sheet and the contract award information will not be mailed to the bidders individually. A tab sheet with the bid results will be posted to the website soon after the bid opening. The tab sheet will include the "contract award" information as soon as it is determined.

This section intentionally left blank
Insurance Requirements

**COMMERCIAL 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:

- **Products/Completed Operations Aggregate**: $2,000,000
- **Personal and Advertising Injury**: $1,000,000
- **Each Occurrence**: $1,000,000

Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include Contractual Liability coverage. The policy shall include owner as an additional insured as their interest may appear.

The required limits can be provided by one or more policies provided all other insurance requirements are met.

Coverage shall be provided by a carrier(s) rated "Excellent" by A.M. Bests.

**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**: $25,000,000
- **Each Occurrence**: $25,000,000

The policy shall be written on an occurrence basis and at a minimum provide the same coverage's as Bidder's General Liability, Automobile Liability and Employer's Liability policies. Owner shall be included as an additional insured on the General Liability and Automobile Liability policies as their interest may appear. One can provide the required limits or more policies provided all other insurance requirements are met.

**Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with its bid. The certificate shall be made out to the purchaser and be an original, no photocopies shall be accepted. The Certificate of Insurance shall provide that owner be given 30 days’ advance notice of cancellation, nonrenewal or material change in coverage.**
SCOPE OF SERVICES/WORK

The Contractor shall provide all management, supervision, parts, and labor necessary to provide Refurbishment of One (1) - 2002 Pierce Dash® 105’ Ladder for the Cambridge Fire Department.

The specifications attached cover only the general requirements as to the type of construction to which the apparatus refurbishment shall conform, together with certain details as to finish, equipment and appliances with which the successful bidder shall conform. Minor details of construction and materials, which are not otherwise specified, are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

TRANSPORTATION AND DELIVERY

The bidder shall make arrangements and be responsible for the costs of transportation of the truck to the bidder’s facility, and delivery of the completed truck back to the fire department. Transportation to and from the bidder’s facility shall be via a hired driver (driven over the road).

INCOMING TRUCK INSPECTIONS

Prior to beginning any work, an inspection of the following areas of the vehicle shall be provided at the bidder’s remanufacturing facility by a qualified technician. The inspections are to verify working components before disassembly, and to determine the overall condition of the truck. Results of the inspections shall be provided to the fire department along with itemized costs, if any, to repair any deficiencies.

- Chassis inspection and road test
- Cab inspection
- Body inspection
- Electrical inspection and test
- Aerial 3rd party (U.L.) certification test

*Repair of deficiencies shall be open, subject to fire department approval. No additional work shall be performed without prior approval from the fire department.*

SERVICE CENTER

The bidder will maintain a factory authorized service center within 2 hours driving distance of the Cambridge Fire Department (located at 491 Broadway, Cambridge, MA 02138). The service center shall have the following minimum qualifications:

1. Minimum 10 years of continuous ownership and management
2. Total in-house body shop capability
3. Minimum 80 foot down draft paint booth with environmental approval
4. Pump mechanics certified by the pump manufacturer
5. Automotive electricians trained by the apparatus factory
6. PRO-LINK 9000 analytical device with current software
7. Lap top shop computer with current multiplex analytical software and wireless modem for direct truck to factory communication
8. Full time body repair and automotive paint staff
9. Certified Master ASE and EVT Technicians
10. Warranty center for Ford®, International Harvester® Caterpillar®, Cummins®, Allison® Transmission, Hendrickson®, Meritor®, Waterous® and Hale® Pumps
11. Computerized parts listing
12. Aerial and hydraulic repair specialists
13. 24 Hour Road & Towing service vehicle
14. VIS® Check Diagnostic analyzer for driveline inspections
15. DOT & Massachusetts Inspection Station
16. Hunter® Laser Truck Alignment System
17. Robinair® Air Conditioning Analyzer
18. Massachusetts Certified Air Conditioning Technician

CONSTRUCTION REVIEW AND WEEKLY PROGRESS REPORTS
The bidder will also provide bi-weekly photographic progress reports and inspection services, provided by an independent third party.

1) Comprehensive review of the bid documents with the factory order to ensure accuracy.

2) Weekly progress reports including photographs of the apparatus or the major components as they are being constructed. The reports shall commence at the beginning of the manufacturing process and shall continue until just prior to the final inspection. The reports shall show the progress of the apparatus through the course of each week. Special attention shall be given to show the unique features and aspects of the apparatus as construction progresses.

3) In addition, after the final inspection has been completed by the customer or third party, the third-party inspector shall review all items noted in the inspection for completion prior to the apparatus leaving the manufacturing facility for delivery to the local service area for pre-delivery service.

INSPECTION TRIP
The bidder will provide one (1) factory inspection trip for three (3) members of the Cambridge Fire Department. The inspection trip will be scheduled at times mutually agreed upon between the manufacturer’s representative and the customer. All costs such as travel, lodging and meals will be the responsibility of the bidder.

SPECIFICATION BID REQUIREMENTS
Bidders shall also indicate in the "yes/no" column if their bid complies on each item (PARAGRAPH) specified.
Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page. Proposals taking total exception to specifications shall not be acceptable.

**EXCEPTIONS**
All exceptions shall be stated no matter how seemingly minor. Any exceptions not taken shall be assumed by the purchaser to be included in the proposal, regardless of the cost to the bidder. An exception to this requirement shall not be acceptable.

**WELDING REQUIREMENTS**
Bidder must follow American Welding Society D1.1-96 standards for structural steel welding. All aluminum welding shall be done to American Welding Society and ANSI D1.2-96 requirements for structural welding of aluminum. Flux core arc welding shall use alloy rods, type 7000, American Welding Society standards A5.20-E70T1.

**SPECIFICATIONS OF VEHICLE TO FOLLOW PER ATTACHED:**

Signature of Bidder__________________________________________________
CHASSIS

FRAME RAIL REPLACEMENT and TORQUE BOX CORROSION REPAIR

- Drain and remove the hydraulic oil reservoir.
- Un-pin the upper aerial device from the rotation bearing upper.
- Remove the water tank, tank cradle, grating, hose bed dividers and all plumbing attached to and/or through the tank area.
- Disassemble the body components, unstring electrical harness and remove the body from the apparatus.
- Disassemble the pump house components, unstring electrical harness, drive shafts and all associated plumbing. Remove the pump house from the apparatus.
- Corrosion on pump house and mounting brackets will be needled / scraped to remove the corrosion. All affected areas will be treated with a rust inhibitor, primed and repainted.
- Remove the slide out platform under the driver’s side pump operator’s panel and replace with new slide out step assembly.
- Remove the rear wall assembly substructure, sandblast, treat with rust inhibitor, repaint and reinstall with new hardware.
- Remove the rear bumper step support frame work. Note a new four-piece rear bumper will be proved later in this scope of work matching 26498TR
- Unbolt the frame stiffener and mounting plates, sandblast and / or needle the “C” channel rails and mounting plates, sandblast, treat with rust inhibitor, repaint and reinstall with new hardware. Torque bolts to spec.
- Unbolt the torque box and remove it from the chassis frame rails.
- Remove all hydraulic hoses and controls.
- The front axle, suspension, steering gear assembly and wheels will be removed, cleaned of corrosion, sandblast / metal finished, repainted and reinstalled with new mounting hardware.
- Reinstall front axle suspension with new U-bolts.
- Remove the rear axle assembly to include suspension and wheels will be removed, cleaned of corrosion, sandblast / metal finished, repainted and reinstalled with new
mounting hardware.

- Remove the rear axle stops and replace with new.

- Remove the fuel tank.

- Remove all body mounting substructures and replace with new hot dipped galvanized body mounting substructures and mounting platforms, new biscuits, cage nuts and hardware will be provided.

- The cab, engine and transmission will be removed and reinstalled on the new frame rails with new mounting hardware.

- Needle the area around the front cab mounts, treat with rust inhibitor, repaint and reinstall with new hardware.

- Remove all crossmembers and replace with new hot dipped galvanized crossmembers.

- The frame rails and frame liners will be removed and replaced with new frame rails and liners that are hot dipped galvanized for additional corrosion protection. The frame rails will be constructed of 120,000 psi yield strength heat-treated .38" thick steel, with 3.50" wide flanges.

- Reinstall all removed assemblies; front bumper extension, cab lift mounting brackets, crossmembers and body mounting supports; torque bolts to spec.

- Four (4) new chassis air tanks and mounting brackets will be provided.

- Replace the following brake system components and air tank pressure protection valves with new.
  - Double check valve
  - Relay valve R-14
  - Relay valve R-12
  - Spring brake relay valve
  - ABS valves
  - Rubber brake lines

- Remove and replace all air valve mounting brackets.

- Replace the fuel tank with new stainless steel tank and install with new stainless steel straps.

- Replace the driver and passenger side running board supports with new hot dipped galvanized supports.
Cambridge Fire Department Refurbishment Specifications

- Replace battery boxes with new **stainless steel** battery boxes.
- Replace passenger and driver side battery boxes and hold downs.
- Reinstall drive shaft assemblies.

**Torque Box**
- Remove outrigger beams and all outrigger cylinders, needle scale the interior of the outrigger housings.
- Sandblast all outrigger horizontal tubes, vertical tubes and planting feet. The outrigger tubes and feet will be repainted black.
- Remove all hydraulic hoses and controls.
- Remove all electrical wiring from the torque box assembly.
- Replace the bottom plate on the torque box with new.
- After all torque box components and torque box is sandblasted to raw metal apply rust inhibitor, prime and finish paint black the complete interior and exterior of the torque box / main frame assembly.
- The outrigger horizontal and vertical tubes will be painted black.
- Re-bolt torque box to the new chassis frame with new mounting hardware, UL to verify torque values.
- Install all lower hydraulic hoses and electrical harnesses
- Assemble outriggers and install.

**Reassembly**
- Remount body panels, cross divider, rear wall assembly, install electrical harnesses and mount all miscellaneous body components.

  **Note the rear bumper will be replaced with a new designed bumper later in this scope of work.**

- Remount the water pump and pump house assembly.
- Reinstall the grating, hosebed dividers and all plumbing attached to and/or through the tank area.
- Pin upper aerial device; secure the bearing to the torque box, using new, Grade 8,
bolts. All bearing bolts will be checked by UL Underwriters Laboratory for proper torque values.

- Remount hydraulic oil reservoir and fill with new hydraulic fluid rated for the correct temperature zone.
- Check all aerial operations for timing and function, grease main bearing.
- Check alignment and road test apparatus.
- Check all DOT and emergency warning lights.

**REAR AXLE TORSION RODS and JOUNCE BUMPERS**
Replace the rear axle torsion rods and bushing.

Replace the rear suspension jounce bumpers.

**TAK-4 BALL JOINTS LOWER**
Replace the existing Lower TAK-4 ball joints with new style ball joints, uppers are already done.

**HEATER HOSE**
All heater hoses in the cab will be replaced with new Gates Green Stripe hoses.

**CAB**

**CAB AND CREW CAB DOORS**
The cab and crew cab doors windows and latches will be repaired and serviced to like new condition.

- Adjust and lubricate all door latches, any defective components will be replaced with new.
- Adjust and lubricate window regulators, any defective components will be replaced with new.
- Replace the cab and crew cab door weather seals with double automotive type rubber seals around the perimeter of the door to ensure a weather tight fit.
- New window track lining and weather stripping will be supplied.
- All cab and crew cab doors will be properly adjusted for fit and operation to include new door stay straps.

**DOOR PANELS**
Replace the existing cab and crew cab door stainless steel lower and vinyl upper interior door panels with new one piece brushed stainless steel full panel, no vinyl.

**HEADLINERS**
Reupholster the cab and crew cab headliners with new 46 ounce, Black leather grain, resistant to oil, grease and mildew.

Headliner material will be vinyl. A sound barrier will be part of its composition. Material will be installed on aluminum sheet and securely fastened to interior cab ceiling.

**CAB GLASS REPLACEMENT**
Replace all cab glass to include the following:
- Windshields
- Cab and crew cab doors roll up windows
- Side of crew cab glass between doors
- Rear opera glass windows.

**CAB and CREW CAB DOME LIGHTS**
The existing cab and crew cab dome lights will be replaced with the following:

There will be four (4) Whelen 60CREGCS dual LED dome lights provided.

**Cab**
Two (2) dome lights will be provided in the cab located one (1) each side over the inside shoulder of the driver and officer.

The white LED's will be controlled by the door switches and the lens switch. The color red LED's will be controlled by the lens switch only.

**Crew Cab**
Two (2) dome lights will be provided in the crew cab headliner replacing the existing dome lights.

The white LED's will be controlled by the door switches and the lens switch. The color red LED's will be controlled by the lens switch only.

**CAB SEATS**
Replace all cab and crew cab seating with the following:

**DRIVER SEAT**
A Seats Inc. #911 Magnum 100 "knee-action" air-ride style seat with high-back will be provided in the cab for the driver.

The seat will have 3.00" of height adjustment, in addition to the "knee-action" suspension.

**OFFICER SEAT**
A Non- SCBA Seats Inc. #911 "scissor-action" air ride high back style seat will be provided in the cab for the officer.

**FORWARD FACING CENTER SEATS**
Two (2) forward facing, Seats Incorporated 911 SCBA seats will be provided at the center position in the crew cab.

The SCBA cavity in each seat will be adjustable front to rear in 0.50" increments to accommodate different size SCBA bottles.

Moving the SCBA cavity will be accomplished by unbolting, relocating and re-bolting in the desired location.

**REAR FACING PASSENGER SIDE OUTBOARD SEAT**
There will be one (1) rear facing, Seats Incorporated 911 SCBA seat provided at the passenger side outboard position in the crew cab.

The SCBA cavity will be adjustable front to rear in 0.50" increments to accommodate different size SCBA bottles.

Moving the SCBA cavity will be accomplished by unbolting, relocating and re-bolting in the desired location.

**SEAT UPHOLSTERY**
All seat upholstery will be black Turnout Tuff material.

**SCBA BRACKETS**
New “Smart Dock” “Hands Free” SCBA bottle brackets will be installed in the seat backs of the three (3) in the crew cab seats. Total of three (3) new Smart Dock SCBA brackets.

**SEAT BELTS (red)**
All seating positions in cab and crew cab will have red seat belts.

**STEERING WHEEL**
A new steering wheel will be provided.

**SWITCH PANELS**
All membrane switch labels will be replaced with new.

**BATTERY CHARGER/AIR COMPRESSOR**
Replace the existing charge with new charge and pump combo system:

There will be a Kussmaul™ Pump Plus 1200, Model # 52-21-1100, single output battery charger/air compressor system will be provided. A display bar graph indicating the state of charge will be included.
The automatic charger will maintain one (1) set of batteries with a maximum output current of 40 amps.

The 12-volt air compressor will be installed to maintain the air system pressure when the vehicle is not in use.

The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.

**FRONT BUMPER**
The existing stainless steel front bumper will be removed and replaced with a new steel painted front bumper to match 21870TR:

The bumper shall be manufactured from .25" formed steel with a .38" bend radius. The bumper shall be 10.00" high with a 1.50" top and bottom flange. The bumper shall be one (1) piece with a front face of the bumper to be 81.00" with 9.00" 45 degree corners with side plates extending back to the cab.

The existing air horns will be reused on the painted bumper in the same locations.

**The cab lift outlet will be relocated to the right front compartment to match the department’s newest Ladder truck.**

The bumper shall be metal finished and painted job color.

**LINEX BUMPER**
The top of the bumper will be coated with red LineX to match the department’s previous trucks.

**CAB LIFT CYLINDERS and BRACKETS**
The existing cab lift system to include the pump, cylinders and mounting structure for the cylinders will be removed and replaced with new.

The new control will be mounting inside the passenger side of the cab like 26498TR.

**NUMBER HOLDERS and PLATES**
Twenty (20) plate holders and twenty (20) number plates will be provided.

Twelve (12) of the plate holders and number plates will be standard size to be used, one (1) on the front bumper and one (1) each side cab door. This is a total of four (4) sets with one (1) set mounted on this unit and the other three (3) for the fire departments other units.

Eight (8) of the plate holders and number plates will be a larger size yet TBD for mounting on the aerial ladder near or on the boom signs, one (1) each side. This is a total of four (4) sets with one (1) set mounted on this unit and the other three (3) for the fire departments other units.
The number plates will be four (4) sets of the following numbers, "1", "2", "3" and "4".

The plate holder and number plates will all be painted.
BODY

DOORS, SIDE BODY COMPARTMENTS
All existing steel hinged lap doors will be replaced with new aluminum hinged lap style doors.

All hinged compartment doors will be lap style with double panel construction from aluminum. Doors will be a minimum of 1.50" thick with a full interior panel. To provide additional door strength, a "C" section reinforcement will be installed between the outer and interior panels.

Doors will be provided with a closed cell rubber gasket around the surface that laps onto the body. A second heavy-duty automotive rubber molding with a hollow core will be installed on the door framing that seals onto the interior pan, to ensure a weather-resisting compartment.

All compartment doors will have polished stainless steel continuous hinge with a pin diameter of .25", that is bolted or screwed on with E-Zinc plated fasteners.

All door lock mechanisms will be fully enclosed within the door panels to prevent fouling of the lock in the event equipment inside shifts into the lock area.

Doors will be latched with recessed, polished stainless steel "D" ring handles and Eberhard 106 locks.

To prevent corrosion caused by dissimilar metals, compartment door handles will not be attached to outer door panel with screws. A rubber gasket will be provided between the "D" ring handle and the door.

Total of twelve (12) doors will be provided.

REAR LADDER STORAGE ROLL UP DOOR
Replace the existing rear ladder compartment roll up door with a new Gortite satin finished roll up door.

REAR WALL, SMOOTH ALUMINUM
The rear wall will be smooth aluminum and divided into three sections matching the design on 26498TR.

REAR BUMPER
The existing rear bumper will be removed and replaced with a new bumper matching the one on 26498TR.

A 5.00" rear bumper will be furnished. Bumper will be constructed of steel framework and will be covered with polished aluminum treadplate. The bumper will be 4.00" deep x 5.00" high and will be spaced away from the body approximately 1.00".
It will extend the full width of the body. The corners of the bumper will be angled at 30 degrees.

The treadplate cover will be constructed of three (3) separate pieces so that they can more easily be removed if damaged.

**STAINLESS STEEL OUTRIGGER PANS**
Replace the four (4) existing stainless steel outrigger pans with new stainless steel pans due to dents.

**BRIGHT ALUMINUM TREADPLATE**
All exterior, bright, aluminum treadplate will be replaced with NFPA 1901 compliant, slip-resistant material. To include:
- Catwalks
- Catwalk over ladders
- Running boards
- Front bulkhead
- Front bumper deckplate
- Rear aerial access step assembles
- Generator floor and removable cover
- Rear cab wall
- Aerial turntable
- Cord reel compartment

**TREADPLATE BOXES DRIVER’S SIDE ABOVE LADDERS**
Remove the two (2) individual aluminum treadplate boxes above the ladders on the driver’s side and fabricate one (1) new box from aluminum treadplate of the size same as the two boxes.

There will be two (2) lift-up doors with slam latches.

The doors will be equal size and had pneumatic cylinders to hold open.

**HANDRAILS**
All existing body and cab handrails will be replaced with new NFPA 1901 compliant non-slip 1.25" diameter anodized aluminum extrusion, with a ribbed design, to provide a positive gripping surface.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

Drain holes will be provided in the bottom of all vertically mounted handrails.

**P-5 TRANVERSE COMPARTMENT SHELF CHANGE**
Remove the existing tool boards from the transverse P-5 compartment and install four (4) new transverse adjustable shelves matching 21870TR.
ELECTRICAL

COMPARTMENT LIGHTING
Remove all existing compartment lights and mounting brackets and replace all body
compartment lights with On-Scene, LED strip lights.

The strips will be centered vertically along each side of the door framing.

Opening the compartment door will automatically turn the compartment lighting on.

HEADLIGHTS, REPLACE
Replace the existing headlights with new LED lights as follows:

There shall be four (4) JW Speaker®, rectangular LED lights mounted in the front quad style,
chrome housing on each side of the cab grille:

- The outside light on each side shall contain a Model 8800-12V - DOT/ECE LB
  LED, low beam module.

- The inside light on each side shall contain a Model 8800-12V -
  DOT/ECE HB LED, high beam module.

ALL EMERGENCY WARNING AND DOT LIGHTS WILL BE UPDATED TO LED
LIGHTS AS FollowS:

DIRECTIONAL (Front)
Front turn signals to be Whelen 600 series LED full populated amber lamps housed in chrome
bezels. The turn signals will be housed in the same common bezel as the front warning light
and be located above the headlights.

In addition to the front facing directional, a Weldon, Model: 9186-8560-20, marker/turn
indicator will be provided on each side of the cab.

LIGHTS, FRONT ZONE LOWER
One (1) pair of Whelen model 60*02F*R, flashing "Super" LED lights will be installed on the
cab face above the headlights, in a common bezel with the directional lights.

The color of these lights will be red Super LED/red lens.

These lights will meet or exceed NFPA front lower zone requirements.

Per NFPA, these lights will be activated by a switch in the cab.

STEP LIGHTS
All cab and body step lights will be changed to LED, step lights.

The new LED step lights on the apparatus will be illuminated per the current edition of NFPA.
1901.

**PERIMETER SCENE LIGHTS, CAB**
There will be a Truck-lite, model 44308C, 4.00", LED, grommet mount weatherproof light provided for each cab and crew cab door. Lighting will be activated automatically when the exit doors are opened, by the door jamb switch and by the same means as the body perimeter lights.

The lighting will be capable of providing illumination at a minimum level of two (2) foot-candles on ground areas within 30.00” of the edge of the apparatus in areas which personnel climb in or out of the apparatus or descend from the apparatus to the ground level.

**PERIMETER SCENE LIGHTS, BODY**
There will be a total of six (6) Truck-Lite, Model 44308C, LED lights provided on the apparatus. Each light will consist of a 4.00" weatherproof LED light, rubber mount, and pigtail kit.

The lighting will be capable of providing illumination at a minimum level of two (2) foot-candles on ground areas within 30.00” of the edge of the apparatus in areas designed for personnel to climb onto the apparatus or descend from the apparatus to the ground level.

The lights will be activated by a switch on the instrument panel.

**REAR FMVSS LIGHTING**
The rear stop/tail and directional lighting will consist of the following:

- Two (2) Whelen model 60R00BRR red LED stop/tail lights.
- Two (2) Whelen, Model 60A00TAR, amber LED populated arrow turn light.
- Two (2) Whelen, Model: 60C00WCR, maximum LED backup lights shall be provided.

These lights will be installed at the rear of the truck in a polished housing.

Four (4) red reflectors will be provided.

A Weldon, license plate bracket will be mounted on the driver’s side above the warning lights. A Weldon, LED, step lamp will illuminate the license plate.

The three (3) identification lights located at the rear will be installed per the following:

- Truck-Lite, Model 35, LED
- As close as practical to the vertical centerline.
- Centers spaced not less than six (6) inches or more than twelve (12) inches apart.
- Red in color.
- All at the same height.
The four (4) clearance lights located at the rear will be installed per the following:

- Truck-Lite, Model 35, LED
- To indicate the overall width of the vehicle.
- One (1) each side of the vertical centerline.
- All at the same height.
- As near the top as practical.

- To be visible from the rear and the side.
  - One (1) each side, facing the side.
  - One (1) each side, facing the rear.

Per FMVSS 108 and CMVSS 108 requirements.

**LIGHTING BEZEL**

Two (2) Whelen, Model Cast 4V, four (4) light aluminum housings will be provided for the rear stop/tail, directional, scene lights and warning.

**MARKER LIGHTS**

There will be One (1) pair of LED amber and LED red marker lights with rubber arm, located at rear of apparatus each side. The amber lens will face the front and the red lens will face the rear of the truck.

These lights will be activated with the running lights of the vehicle and the directional circuit.

**WARNING LIGHT (Cab Roof)**

There will be two (2) 21.50" Whelen® Freedom™ IV LED lightbars mounted on the cab roof, one (1) on each side, above the left and right doors, facing forward.

The left side lightbar will include the following:

- One (1) red flashing LED module in the outside end position.
- One (1) red flashing LED module in the outside front corner position.
- One (1) white flashing LED module in the outside front position.
- One (1) red flashing LED module in the inside front position.
- One (1) red flashing LED module in the inside front corner position.

The right side lightbar will include the following:

- One (1) red flashing LED module in the inside front corner position.
- One (1) red flashing LED module in the inside front position.
- One (1) white flashing LED module in the outside front position.
- One (1) red flashing LED module in the outside front corner position.
- One (1) red flashing LED module in the outside end position.
There will be colored lenses matching the color of the lights.

There will be a switch in the cab on the switch panel to control the lightbars.

The white LEDs will be disabled when the parking brake is applied.

The two (2) red flashing LED modules in the inside front and the two red flashing LED modules in the inside front corner positions may be load managed when the parking brake is applied.

**SIDE ZONE LOWER LIGHTING**
Six (6) Whelen 600 series SUPER-LED™, lights will be located at the following positions:

Two (2) model 60*02F*R red Super LED/red lens flashing warning lights.
The location of these lights will be on each side on the bumper extension.

Two (2) model 60*02F*R red Super LED/red lens flashing warning lights.
The location of these lights will be on each side on the crew cab.

Two (2) model 60*02F*R red Super LED/red lens flashing warning lights.
The location of these lights will be on each side of the body rear fender panel.

One (1) switch located in the cab on the switch panel will control these lights.

These lights will be installed with a chrome plated ABS plastic flange

**REAR ZONE LOWER LIGHTING**
Two (2) Whelen model 60*02F*R flashing "Super" LED warning lights will be located at the rear of the apparatus, required to meet or exceed the lower level optical warning and optical power requirements of NFPA.

The color of these lights will be red Super LED/red lens.

One (1) switch in the cab on the switch panel will control these lights.

These lights will be installed with a flange.

**WARNING LIGHTS (Rear)**
One (1) pair of Whelen Red Super LED/amber lens 60*02F*R flashing Super LED lights will be provided.

These lights will be located at the rear of the body above near the top rear wall replacing the existing Federal GH1F warning lights.

These lights will be installed with a flange.
WARNING LIGHTS (Rear of Hose Bed)
Two (2) Whelen L31H*FN LED warning beacons will be provided at the rear of the truck, located one (1) each side. These lights will be activated by a lighted switch on the instrument panel.

The color of the lights will be red LEDs with both domes red.

STABILIZER WARNING LIGHTS
Four (4) Whelen model 6E, flashing Super LED warning light will be mounted on the stabilizer cover panel, one (1) for each panel.

Front stabilizer LEDs to be red Super LED/red lens each side.

Rear stabilizer LEDs to be red Super LED/red lens each side

These warning lights will be activated by the NFPA side zone switch.

These lights will be provided with a flange.

STABILIZER PANS
New stabilizer pans will be provided to accommodate the change in stabilizer lighting.

WORK LIGHTS, REAR BODY
Replace the rear deck light Collins lights with the following lights:

There will be two (2) Unity Model AG-S-P46WLC 6.00" LED deck lights provided at the rear of the apparatus. The lights will be furnished with white LED's.

Switched battery power will be supplied to the lights. Each light includes a switch on the light head.

CORNERING/SCENE LIGHTS
There will be one (1) pair of Whelen 600 halogen lights with flanges and 13-degree internal optic scene light lens provided on the apparatus.

The lights will be provided one (1) each side of the body above the rear outrigger replacing the Code 3, model 41226 cornering lights

The halogen lights will be wired so they activate and cancel with the directional lights, and include a delay, cancel with the 4-way flashers and activate by a switch in the cab.

These lights will also activate with the other side scene light on the apparatus.

REAR BODY SCENE LIGHTS
Cambridge Fire Department Refurbishment Specifications

There will be two (2) Whelen, Model 90C0ENZR Gradient LED scene lights with chrome flange installed one (1) each side on the rear body wall in place of the existing Weldon scene lights

**12 VOLT LIGHT BRACKET, CREW CAB**
There will be two (2) painted to match the top of the roof, smooth aluminum bracket(s) installed Crew Cab roof, one (1) each side replacing the existing Collins lights for the surface mounted flood light. The bracket(s) will have all wiring totally enclosed.

**12 VOLT LIGHT BRACKET, BODY**
There will be four (4) aluminum treadplate bracket(s) installed two (2) each side on the upper body in the same locations as the existing 1500 watt and 500 watt lights, for the new recessed flood light below. The bracket(s) will have all wiring totally enclosed.

**12 VOLT LIGHTING, CREW CAB ROOF and BODY**
There will be six (6) Whelen Model PCP3P, 12-volt DC LED combination spotlight and floodlight(s) with Model PBA203 bail mounting bracket(s) provided, two (2) on the crew cab roof and four (4) on the body, two (2) each side in the same locations as the existing fixed 1500 watt and 500 watt lights.

The painted parts of this light assembly to be white.

The light(s) selected above will be controlled by the existing switching in the cab.

These light(s) may be load managed when the parking brake is applied.
AERIAL

AERIAL DEVICE OVERHAUL
The device once received will be cleaned and inspected by a qualified aerial technician to assure the device is serviceable and / or repairable.

AERIAL INSPECTION and OVERHAUL
Prior to disassembly, a 3rd party testing company, UL Underwriters Laboratory will perform an operational test and inspection on the aerial device to the current standards of the NFPA 1911. All timings will be tested to NFPA 1911, A.19.8.8.2. The test results will be evaluated and forwarded to the fire department. If any defects are found, that are not already detailed in these specifications for repair or replacement, or it is determined that any of the major components require reconstruction or replacement rather than rebuilding or resealing as detailed in these specifications, the fire department will be advised immediately. A parts and labor estimate for the repair of the defects will be submitted for approval prior to proceeding.

The aerial device will be disassembled for repairs. The upper aerial assembly and turntable will be removed from the rotation bearing at the torque box. The ladder sections will then be removed from the turntable and separated.

While the aerial device is disassembled, the ladder sections will be media blasted at this time the complete aerial device will go through a 3rd party UL Underwriters Laboratory visually inspection to include nondestructive magnetic particle testing of all welds. All steel structural weldments will be inspected for compliance with the American Welding Society (AWS) standard D1.1, “Structural Welding Code-Steel”.

All aluminum structural weldments will be inspected for compliance with AWS standard D1.2 “Structural Welding Code-Aluminum”. Any weld discontinuities will be corrected and repaired.

All welding of aerial components, including the aerial ladder sections, turntable, platform basket, and outriggers, will be in compliance with the American Welding Society standards. All welding personnel will be certified, as qualified under AWS welding codes.

Any discontinuities will be corrected and repaired prior to repaint.

Cylinders
All hydraulic cylinders will be removed from the outriggers and aerial device to include: the lift cylinders, extension cylinders, basket leveling, and all outrigger cylinders.

All cylinders, with the exception of the extension cylinders, will be disassembled and rebuilt to include re-chroming the rods and honing the cylinder walls if scored or pitted. New seals will also be installed. Defective head glands will be replaced. Holding valves will be tested for proper operation. If new holding valves and / or cylinder rods due to bent rods are required a labor and material cost will be forward to the fire department for approval.
The extension cylinders will be inspected. These cylinders were recently replaced and do not need rebuild or replacement.

**Hydraulic hoses**
All hydraulic hoses will be replaced with new, this is to include the aerial device, turntable and outriggers. Fittings for the aerial device and outriggers will be **inspected and replaced with new only if necessary**.

All hose assemblies will be assembled and crimped by the hose manufactures certified technician.

All manufacturing employees responsible for the installation of hydraulic components will be properly trained. Training will include: proper handling, installation, torque requirements, cleanliness and quality control procedures for hydraulic components.

Hoses used in the aerial hydraulic system will be of a premium quality hose with a high abrasion resistant cover. All pressure hoses will have a working pressure of 3000 psi. with a burst pressure rating of 9,000 psi., and one-half the required SAE bend radius.

**Hydraulic pump**
A new hydraulic pump and hot-shift PTO will be provided and installed.

**New drive shaft from PTO to Pump will also be provided.**

The hydraulic system will be supplied by a variable displacement, load and pressure compensating piston pump. The pump will meet the demands of all three (3) simultaneous aerial functions. The pump will provide proper flow for a single aerial function with the engine at idle speed. A switch will be provided on the control console to increase the engine speed for multiple function operation.

The hydraulic system will be protected from possible hydraulic pump malfunctions by a relief valve, which will route the excess oil into the oil tank, when the pressure in the hydraulic system exceeds 3,150 pounds per square inch.

An amber indicator light will be installed, on the cab instrument panel, to notify the operator that the power takeoff is engaged.

An interlock will be provided that allows operation of the aerial power takeoff, only after the chassis spring brake has been set and the chassis transmission has either been placed in the neutral position or the transmission is in drive position with the driveline to the rear axle disengaged.

**Oil tank and filters**
The hydraulic oil tank will be drained, cleaned, new filters and hydraulic oil installed.

The hydraulic oil will be a premium Multi-Vis product having a leading edge additive.
package, provide oxidation stability, be extremely shear stable and maximum anti-wear properties. All oil delivered to the manufacturing site will have a minimum ISO cleanliness level of 18/15/13.

Each aerial will be evaluated as to the region and climate where it will be used to determine the optimum viscosity and proper oil grade. Oil viscosity will be based on an optimum range of 80 to 1000 SUS during normal aerial use. Before shipment of the unit, an oil sample will be taken and analyzed to confirm the oil is within the allowable ISO grade tolerance.

**High pressure filter**
The pressure filter will be rated for 6,000 psi working pressure. A 90 psi bypass spring will be included to protect the element and hydraulic system during lower than normal system operating temperatures.

The 5Q filter element will be constructed of a micro glass medium, which has the highest capture efficiency, dirt holding capacity and life expectancy over other media such as cellulose and synthetic. The nominal rating will be 5 microns and have an efficiency rating of 99.3% for 5 micron sized particles. The element will have a dirt holding capacity of not less than 35 grams.

**Return filter**
The return filter will be rated for 800 psi working pressure. A 25 psi bypass spring will be included to protect the element and hydraulic system during lower than normal system operating temperatures. The 5Q filter element will be constructed of a micro glass medium, which has the highest capture efficiency, dirt holding capacity and life expectancy over other media such as cellulose and synthetic. The nominal rating will be 5 microns and have an efficiency rating of 99.6% for 5 micron sized particles. The element will have a dirt holding capacity of not less than 40 grams.

**Controls**
All lower controls will be replaced with equivalent controls this is to include new outrigger control valves and new diverter valve interlock.

To aid in leveling the unit, two new bubble type angle indicators will be located near the stabilizer controls. One indicator will show the angle of the truck from the front to rear and the other will show the side to side angle of the truck. The indicators will be color coded green to show when the truck has been properly leveled allowing the aerial device to be operated at full capacity.

The upper PQ controls will be replaced with new, updated controls similar to that used on current production aerial apparatus.

**Console**
A new turntable console will be provided for all new updated upper aerial function controls. The console will be lighted for nighttime operation with one (1) work light activated by the aerial master switch. A fuse panel will be located in the turntable console.
**Stabilizer beam warning lights**
Two (2) new 4.00" diameter red LED flashing lights will be mounted under each stabilizer, one (1) facing forward and one (1) facing rearward. The lights will be Grote Supernova 40 series LED lights. These warning lights will be activated with the aerial master switch.

**Electrical system**
All electrical wiring for the aerial device, turntable, console and outriggers will be replaced.

The aerial electrical system will be designed and manufactured in such a way that the power and signal protection and control compartments will contain circuit protection devices and power control devices. The power and signal protection and control components will be protected against corrosion, excessive heat, excessive vibration, physical damage, and water spray.

The aerial electrical system will be designed and manufactured to allow the following:

- All of the serviceable components will be readily accessible.

- Circuit protection devices will be utilized to protect each circuit.

- All circuit protection devices will be sized to prevent wire and component damage when subjected to extreme current overload.

- General protection circuit breakers will be Type-I automatic reset (continuously resetting) or Type-II (manual resetting) and conform to SAE requirements. When required, automotive type fuses conforming to SAE requirements will be utilized to protect electronic equipment.

- Power control relays and solenoids, when utilized, will have a direct current (dc) rating of 125% of the maximum current for which the circuit is protected.

- Toggle switches will be utilized that are certified for the outside conditions that fire apparatus experience.

- All wiring will be protected through conduit or loom.

- All wiring harnesses will be properly supported to eliminate harness damage through rubbing.

**AERIAL DEVICE LIGHTING**
Remove the existing four (4) Collins lights on the aerial base and tip and replace with the following Whelen MPBW, MICRO LED lights:

- One (1) Whelen LED, MICRO will be installed on the right side of the base section of the ladder.
Cambridge Fire Department Refurbishment Specifications

- One (1) Whelen LED, MICRO will be installed on the left side of the base section of the ladder.

- One (1) Whelen LED, MICRO will be installed on the right side at the end of the aerial device.

- One (1) Whelen LED, MICRO will be installed on the left side at the end of the aerial device.

Individual on/off switches will be provided on each light.

Power to the lights will be controlled by a master on/off switch at the turntable control operator's position.

The lights will be mounted below the top edge of the aerial device so as not to increase the overall height of the unit.

Note: The existing Collins lights are to be shipped loose back to the customer.

**Locator Lights**
The Whelen 800 strobe locator lights will be replaced with new amber LED locator lights.

**Hydraulic swivel**
The aerial will be equipped with a new high pressure hydraulic swivel which will connect the hydraulic lines from the hydraulic pump and reservoir, through the rotation point, to the aerial control bank. The hydraulic swivel will allow for 360-degree continuous rotation of the aerial.

**Electric swivel**
The aerial will be equipped with an electric swivel to allow 360-degree rotation of the aerial while maintaining connections in all electrical circuits through the rotation point. A minimum of 28 collector rings that are capable of supplying 30-amp continuous service will be provided. All collector rings will be enclosed and protected against condensation and corrosion.

**Emergency power unit**
A new extended run Emergency Power Unit (EPU) will be installed. The pump will be capable of running for 30 minutes for limited aerial functions to stow the unit in case of a main pump or truck system failure. A momentary switch will be located at the stabilizer and aerial control locations to activate the emergency pump.

**Rotation drive motor**
The hydraulic rotation drive motor will be replaced with new.

**Rotation gear**
The rotation gear will be inspected for defects, proper tolerance, and proper operation: repairs will be open, subject to approval by the fire department.
The turntable will be bolted to the bearing using new, SAE Grade 8, .875" diameter bolts. To secure the bearing to the torque box, using new, Grade 8, .875" diameter bolts. All bearing bolts will be checked by UL Underwriters Laboratory for proper torque values.

**Vapor Sealant**

VpCI-329 Multi-metal corrosion inhibitor will be applied to all ladder sections. VpCI-329 is a vapor sealant that is applied to the interior of the aerial ladder sections to aid in preventing corrosion from forming on the inside of all sections.

**Steel cables**

All extension/retraction cables will be replaced with new.

The reeling of the cable will be such as to provide synchronized, simultaneous movement of all sections to full extension. The extension/retraction cables will be: 7-flex galvanized wire rope with stainless steel threaded ends.

All cable sheaves will be inspected and replaced only if necessary.

**Pins and bushings**

All pins and bushings for the aerial ladder device will be **inspected for tolerance as required by OEM specification. New pins and/or bushing will be provided only if required.**

**Wear pads**

All extension wear pads on the aerial ladder will be replaced with new.

Wear pads that are made of polymer material will be used between the telescoping sections for maximum weight distribution, strength and smoothness of operation.

**Rung covers**

Each rung will be covered with a secure, heavy-duty, fiberglass pultrusion that incorporates an aggressive, no-slip coating. The rung covers will be glued to each rung, and will be easily replaceable should the rung cover become damaged. Each rung cover edge will have 2.00" of photo-luminescent, aggressive, no-slip coating to assist in providing a light source for each rung during low light conditions. The photo-luminescent coating will remain visible for up to 20 hours after exposure to light.

The rung covers will have a 10-year, limited warranty.

**Waterway**

The waterway system will be hydrostatically tested and the waterway pipes inspected for corrosion. New seals will be installed throughout the waterway including the Victaulic’s, chick-san, and dresser coupling seals. The waterway seals will be of Type-B PolyPak design, composed of nitroxyle seal and a nitrile wiper, which together offer maximum stability and extrusion resistance on the waterway.

The waterway seals will have automatic centering guides constructed of synthetic
thermalpolymer. The guides will provide positive centering of the extendible sections within each other and the base section to insure longer service life and smoother operation.

The waterway pipe fittings will be inspected for corrosion after disassembly. The Fire Department will be notified if repair or replacement of any waterway fittings is recommended.

**Intercom**
The existing intercom will be removed and replaced with a new two (2) station Atkinson intercom system one (1) at the turntable console and the other at the aerial tip.

**Aerial device paint**
All aerial device structural components above the rotation point that are not chrome plated or stainless steel will be repainted.

The ladder sections and all painted surfaces on the turntable and hydraulic cylinders will be repainted to match the original color.

All areas to be repainted will be sanded to remove any metal flakes and smooth any rough surfaces.

All ladder surfaces to be painted will be phosphatized to remove metal impurities, aid paint adhesion and inhibit rust.

The components will be primed with an epoxy primer and finished painted with a durable, high gloss polyurethane paint.

All buy out components, such as monitor, nozzle, gauges, etc. will be supplied as received from the vendor and not repainted.

All the hydraulic hoses, wiring and non-ferrous metals will be masked off before painting.

A yellow reflective stripe will be provided on the vertical and horizontal members of the stabilizers.

Any graphics removed from the ladder to repaint will be installed after repaint.

**Paint color #**
The aerial, turntable and console will be repainted White # 20

The stabilizers will be repainted Black # 101

**Ground pads**
The existing aluminum ground pads will be replaced with new lightweight composite pads.

An auxiliary ground pad will be supplied for each stabilizer. The pads will be 24.00” square
and made from a lightweight composite material. The ground pressure will not exceed 75 pounds per square inch when the ground pads are used and the apparatus is fully loaded and the aerial device is carrying its rated capacity in any position.

**Aerial certification**
After all repairs and modifications are completed, the aerial device will be reassembled. The complete device will be lubricated, adjusted and tested for proper operation. The unit will then be fully tested by a 3rd party testing company, UL Underwriters Laboratory to the current standards of the NFPA 1911. All timings will be tested to NFPA 1911 table A.19.8.8.2.
PAINT and GRAPHICS

COMPLETE REPAINT CAB and BODY

CORROSION and SMALL DENTS
Metal finish and repair all minor body and cab corrosion and any small dents prior to repainting the complete exterior of the apparatus body and cab. Additional major corrosion and/or accident damage repair costs will be open: subject to inspection and written approval by the fire department.

CORROSION ON BODY FENDER PANELS
All body corrosion on the body fender panels will be repaired prior to paint.

CAB REPAINT – Two-Tone
The cab will be metal finished and repainted two-tone with the upper section painted White #20 and the lower portion painted Red #193. The two-tone will match the existing break line and shield.

BODY REPAINT COLOR
The body will be metal finished and repainted RED #193

WHEELS PAINT COLOR
The wheels will be metal finished and repainted RED #193 with silver edge trim.

PAINT, COMPARTMENT INTERIOR
The compartment interior will be repainted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.

PAINT - BODY and CAB
The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows:

1. Manual Surface Preparation - All exposed metal surfaces on the custom body will be thoroughly cleaned and prepared for painting. Surfaces that will not be painted include all chrome plated, polished stainless steel, anodized aluminum and bright aluminum treadplate. Each imperfection on the exterior metal surface will be removed or filled and then sanded smooth for a smooth appearance. All seams will be sealed before painting.

2. Chemical Cleaning and Treatment - The aluminum surfaces will be properly cleaned using a 4-phase, high pressure and high temperature acid etching system. All steel surfaces will be properly treated using a 3-phase, high temperature, cleaning/phosphatizing system. Surfaces are chemically cleaned to remove all dirt, oil, grease and metal oxides to ensure the subsequent coatings bond well. An ultra-pure water final rinse of 25 parts per million solids or less, will be applied to final rinse all metal surfaces at the conclusion of the metal treatment process. This final rinse ensures all chemical residues are removed and that no minerals, (salts), from the water dry onto the metal surface and remain under the primers and topcoats. These salts can lead to blistering and under film corrosion.
3. **Primer/Surfacer Coats** - A minimum of two (2) mil dry, (.002), of two component urethane primer/surfacer will be hand applied to the chemically treated metal surfaces to provide a strong corrosion protective base coat and to smooth out the surface. The primer is a high solids and low VOC paint.

4. **Hand Sanding to Ultra Fine Finish**  The primer/surfacer coat is lightly sanded with mild abrasive paper to an ultra smooth finish. This hand finish process is critical to produce the smooth mirror like finish in the topcoat.

5. **Sealer Primer Coat** A two- (2) component sealer primer coat is applied over the sanded primer to again build toward the final smooth finish. This layer of primer sealer also gives additional corrosion protection.

6. **Topcoat Paint** Two (2) coats of an automotive grade, two component acrylic urethane paint are applied to provide the lasting beauty and durability. The acrylic urethane topcoat contains a clear coat resin chemistry that creates the high gloss and depth of image. This type of topcoat provides the best resistance against acid rain and other more common chemicals.

7. **Clearcoat** - Two (2) coats of an automotive grade two (2) component urethane will be applied. Lap style doors will be clear coated to match the body. Roll-up doors will not be clear coated and the standard roll-up door warranty will apply.

A cyclic corrosion test, (General Motors test GM-9540), of 40 cycles will be required before making changes to the exterior coating process. Exterior coating systems, (excluding the undercarriage components), must achieve a 1/16 or less maximum creep from the scribe for aluminum and an 1/8 or less maximum creep from the scribe for galvanneal after 40 cycles in the General Motors GM-9540 test.

Each batch of color topcoat, together with the finish painted vehicle, is tested for precise color match. Visual color match will be checked following ASTM D-1729, (American Standard Testing Methods), procedures using CIE, (International Commission on Illumination), D75 Northern Daylight light source. Instrumental color match will follow ASMT D-2244 procedures with a maximum delta E of 1.0 for whites, 1.4 for yellows, blues, greens and 1.5 for reds.

All removable items such as brackets, compartment doors, door hinges, trim, etc. will be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly.

**PAINT - ENVIRONMENTAL IMPACT**
Contractor will meet or exceed all current State (his) regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions:

- Topcoats and primers will be chrome and lead free.

- Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals.

- Particulate emission collection from sanding operations must have a 99.99% efficiency factor.
- Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter means is used, it must have an efficiency rating of 98.00%. Water wash systems will be 99.97% efficient.

- Water from water wash booths will be reused. Solids will be removed mechanically on a continual basis to keep the water clean.

- Paint wastes are disposed of in an environmentally safe manner. They are used as fuel in kilns used in the cement manufacturing process - thereby extracting energy from a waste material.

- Empty metal paint containers will be cleaned, crushed and recycled to recover the metal.

- Solvents used in clean-up operations will be collected, recycled on-site, or sent off-site for distillation and returned for reuse. Residue from the distillation operation will be used as fuel in off-site cement kilns.

**WARRANTY - PAINT AND CORROSION**

**Limited Warranty**

Except as provided below, and provided the vehicle has been placed in service within 60 days after delivery to the original purchaser as established by our original invoice, for a period of **one (1) year**, warrants to the user that its cab and body are free of blistering, peeling, bubbling, or any other adhesion defect caused by defective manufacturing methods or paint material selection for exterior surfaces of the cab and body of the vehicle. This limited warranty will apply only if the vehicle is properly maintained and used in service which is normal to the particular vehicle. Normal service means service which does not subject the vehicle to stresses or impacts greater than normally result from the careful use of the vehicle or chassis. If the buyer discovers a defect or nonconformity it must notify the manufacturer in writing within 30 days after the date of discovery. This limited warranty is not transferable by the first user, and is applicable to the vehicle in the following percentage costs of warranty repair, if any:

<table>
<thead>
<tr>
<th>Months</th>
<th>Adhesion</th>
<th>Blistering</th>
<th>Bubbling</th>
<th>Corrosion</th>
<th>Cracking</th>
<th>Gloss</th>
<th>Color Retention</th>
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</thead>
<tbody>
<tr>
<td>0 to 12</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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</tr>
</tbody>
</table>

This limited warranty applies only to cab and body exterior paint

**REFLECTIVE BAND, LETTERING and GRAPHICS**

All graphics, lettering and reflective bands are to match the existing scheme and color.

**CHEVRON/INVERTED "V" STRIPING ON REAR WALL DIAMOND GRADE**

All vertical surfaces of the rear aluminum treadplate will be replaced with smooth aluminum sheet and covered will chevron stripping.

There will be alternating inverted “V” chevron striping located on the rear wall of the apparatus to include the rear bulkheads.

The striping will consist of the following colors:
Cambridge Fire Department Refurbishment Specifications

The first color will be Diamond grade RED
The second color will be Diamond grade YELLOW

The size of the striping will be 6”.

**FINALIZATION and DETAILING**
Prior to delivery the entire vehicle will be washed to include the interior and exterior.

All fluid levels will be checked on topped off if needed.

The vehicle will be fully fueled.
Please circle Yes or No for each of the following Quality Requirements (1-4).

A “No” response or a failure to respond to any of the following will result in rejection of your bid. The City of Cambridge will reject any bid that does not meet the quality requirements.

1. The bidder’s repair facility is located in Cambridge or within 2 Hours Driving Distance of Cambridge Fire Department, 491 Broadway, Cambridge, MA 02138.
   Yes   No

2. The bidder has provided fire apparatus construction and refurbishment similar to those described in this Invitation for Bid for a minimum of twenty (20) years.
   Yes   No

3. The manufacturer shall operate a Quality Management System under the requirements of ISO 9001. (Please include a copy of the Certificate of Compliance with submission of bid)
   Yes   No

4. The bidder certifies that they are a Single Source Apparatus Manufacturer, and can provide evidence of compliance.
   Yes   No

This section intentionally left blank

Signature of Bidder ________________________________________________
BID SUBMISSION REQUIREMENT

The following Bid Submission Requirement is for all bidders submitting a bid for Refurbishment of Pierce Vehicle for Cambridge Fire Department. Failure to submit the documents requested with your bid may result in the determination that your bid is non-responsive unless the City deems such failure to be a minor informality. Please submit the following information.

1. The bidder must provide in writing the names and contact information of two (2) governmental client references for whom the bidder has been providing services similar to the services described in this Invitation for Bid for a period of one year or more. In addition, the City reserves the right to use itself as a reference. A bid may be rejected on the basis of one or more references reporting poor past performance by the bidder.

   a. Governmental Client Reference

      | Company Name | Contact | Phone number | Years providing service |
      |--------------|---------|--------------|-------------------------|

   b. Governmental Client Reference

      | Company Name | Contact | Phone number | Years providing service |
      |--------------|---------|--------------|-------------------------|

This section intentionally left blank
PRICE PROPOSAL

Total Price: $__________________________________________________________

Total in Words: ________________________________________________________

Signature of Bidder: ____________________________________________________

Email Address: _________________________________________________________

Signature of Bidder____________________________________________________
American with Disabilities Act (42 U.S.C. 12131)
Section 504 of the Rehabilitation Act of 1973
Tax Compliance/Anti-Collusion Statement
Debarment Statement

The Americans with Disabilities Act (the "Act") applies to all employers of fifteen or more employees. All vendors that are subject to the Act must comply with its provisions. In further compliance with the Act, all Contractors who enter into contracts with the City are prohibited from discrimination against the City's employees, regardless of the size of the Contractor.

The Act protects against discrimination on the basis of "disability", which is defined as a physical or mental impairment that substantially limits at least one "major life activity"; discrimination against a person having a history or record of such impairment; and discrimination against an individual regarded - even if inaccurately - as having such an impairment. The Act also expressly prohibits discrimination that is based on an individual's relationship or association with a disabled person.

The Contractor shall not discriminate against any qualified employee or job applicant with a disability and will make the activities, programs and services covered by any contract awarded through this procurement readily accessible to and usable by individuals with disabilities. To be qualified for a job, or to avail oneself of the Contractor's services, the individual with the disability must meet the essential eligibility requirements for receipt of the Contractor's services or participation in the Contractor's programs or activities with or without: 1) reasonable modifications to the Contractor's rules, policies and practices; 2) removal of architectural, communication, or transportation barriers; or, 3) provisions of auxiliary aids and services.

By submitting its contract, the Contractor certifies to the City of Cambridge that it understands and will comply with all applicable provisions of the Act, including compliance with applicable provisions of Section 504 of the Rehabilitation Act of 1973, if the Contractor is receiving federal funds.

The undersigned certifies under penalties of perjury that this contract has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals

As required by M.G.L. c. 62C, §49A, the undersigned certifies under the penalties of perjury that the Contractor has complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

The undersigned certifies that it is not currently subject to any State or Federal debarment order.

Date: ______________________________________

(Print Name of person signing bid)

(Signature & Title)

This form must be submitted with your bid
WAGE THEFT PREVENTION CERTIFICATION

In Executive Order 2016-1, the City of Cambridge established requirements for City contracts in an effort to prevent wage theft. Prospective vendors must provide the following certifications or disclosures with their bids/proposals. Failure to provide the following shall result in rejection of the bid/proposal.

Instructions for this form:

A prospective vendor must check box 1 or box 2, as applicable, as well as boxes 3-5, and must sign this Form, certifying compliance with the requirements set out in this Form. This Form must be included with the bid or proposal, and for multi-year contracts must be completed annually on the contract anniversary and filed with the Purchasing Agent.

The undersigned certifies under the pains and penalties of perjury that the vendor is in compliance with the provisions of Executive Order 2016-1 as currently in effect.

All vendors must certify that [check either box 1 or box 2, as applicable]:

1. [ ] Neither this firm nor any prospective subcontractor has been subject to a federal or state criminal or civil judgment, administrative citation, final administrative determination, order or debarment resulting from a violation of G.L. c. 149, G.L. c. 151, or 29 U.S.C. 201 et seq. within three (3) years prior to the date of this bid/proposal submission.

   OR

2. [ ] This firm, or a prospective subcontractor of this firm, has been subject to a federal or state criminal or civil judgment, administrative citation, final administrative determination, order or debarment resulting from a violation of G.L. c. 149, G.L. c. 151, or 29 U.S.C. 201 et seq. within three (3) years prior to the date of this bid/proposal submission and such documentation is included in the bid/proposal submission.

In addition, all vendors must certify each of the following:

3. [ ] Any federal or state criminal or civil judgment, administrative citation, final administrative determination, order or debarment resulting from a violation of G.L. c. 149, G.L. c. 151, or 29 U.S.C. 201 et seq. imposed on this firm or on any prospective subcontractor while any bid/proposal to the City is pending and, if awarded a contract, during the term of the contract, will be reported to the Purchasing Agent or other City department within five (5) days of receiving notice.

Signature of Bidder__________________________________________________
4. Vendors awarded a contract that have disclosed a federal or state criminal or civil judgment, administrative citation, final administrative determination, or order resulting from a violation of G.L. c. 149, G.L. c. 151, or 29 U.S.C. 201 et seq. within three (3) years prior to the date of this bid/proposal, while the bid/proposal was pending, or during the term of the contract shall, upon request, furnish their monthly certified payrolls for their City contract to the Purchasing Agent for all employees working on such contract and are required to obtain a wage bond or other suitable insurance in an amount equal to the aggregate of one year’s gross wages for all employees. Vendors subject to a state or federal debarment for violation of the above laws or prohibited from contracting with the Commonwealth are prohibited from contracting with the City, and upon a finding or order of debarment or prohibition, the City may terminate the contract.

5. Notice provided by the City, informing employees of the protections of Executive Order 2016-1 and applicable local, state, and federal law will be posted by this firm in conspicuous places.

Attested hereto under the pains and penalties of perjury:

(Typed or printed name of person signing quotation, bid or proposal)  
________________________________________  
Signature

(Name of Business)

Pursuant to Executive Order 2016-1, vendors who have been awarded a contract with the City of Cambridge must post the Massachusetts Wage and Hour Laws notice informing employees of the protections of G.L. c. 149, G.L. c. 151, and 21 U.S.C. 201 et seq. in conspicuous places. This notice can be found at http://www.mass.gov/ago/docs/workplace/wage/wagehourposter.pdf
CORI COMPLIANCE FORM

Persons and businesses supplying goods and/or services to the City of Cambridge ("Vendors"), who are required by law to perform CORI checks, are further required by Section 2.112.060 of the Cambridge Municipal Code to employ fair policies, practices and standards relating to the screening and identification of persons with criminal backgrounds through the CORI system. Such Vendors, when entering into contracts with the City of Cambridge, must affirm that their policies, practices and standards regarding CORI information are consistent with the policies, practices and standards employed by the City of Cambridge as set forth in the City of Cambridge CORI Policy ("CORI Policy") attached hereto.

CERTIFICATION

The undersigned certifies under penalties of perjury that the Vendor employs CORI related policies, practices and standards that are consistent with the provisions of the attached CORI Policy. All Vendors must check one of the three lines below:

1. ______ CORI checks are not performed on any Applicants.

2. ______ CORI checks are performed on some or all Applicants. The Vendor, by affixing a signature below, affirms under penalties of perjury that its CORI policies, practices and standards are consistent with the policies, practices and standards set forth in the attached CORI Policy.

3. ______ CORI checks are performed on some or all Applicants. The Vendor’s CORI policies, practices and standards are not consistent with the attached CORI Policy. Please explain on a separate sheet of paper.

______________________________
(Typed or printed name of person signing quotation, bid or proposal)  Signature

______________________________
(Name of Business)

NOTE:
The City Manager, in his sole discretion may grant a waiver to any Vendor on a contract by contract basis.

Instructions for Completing CORI Compliance Form:
A Vendor should not check Line 1 unless it performs NO CORI checks on ANY applicant. A Vendor who checks Line 2 certifies that the Vendor’s CORI policy conforms to the policies, practices and standards set forth in the City’s CORI Policy. A Vendor with a CORI policy that does NOT conform to the City’s CORI Policy must check Line 3 and explain the reasons for its nonconformance in writing. Vendors who check Line 3 will not be permitted to enter into contracts with the City, absent a waiver by the City Manager.

This form must be submitted with your bid.
City of Cambridge CORI Policy

1. Where Criminal Offender Record Information (CORI) checks are part of a general background check for employment or volunteer work, the following practices and procedures will generally be followed.

2. CORI checks will only be conducted as authorized by Criminal History Systems Board (CHSB). All applicants will be notified that a CORI check will be conducted. If requested, the applicant will be provided with a copy of the CORI policy.

3. An informed review of a criminal record requires adequate training. Accordingly, all personnel authorized to review CORI in the decision-making process will be thoroughly familiar with the educational materials made available by the CHSB.

4. Prior to initiating a CORI check, the City will review the qualifications of the applicant to determine if the applicant is otherwise qualified for the relevant position. The City will not conduct a CORI check on an applicant that is not otherwise qualified for the relevant position.

5. Unless otherwise provided by law, a criminal record will not automatically disqualify an applicant. Rather, determination of suitability based on CORI checks will be made consistent with this policy and any applicable law or regulations.

6. If a criminal record is received from CHSB, the authorized individual will closely compare the record provided by CHSB with the information on the CORI request form and any other identifying information provided by the applicant, to ensure the record relates to the applicant.

7. If, in receiving a CORI report, the City receives information it is not authorized to receive (e.g. cases with dispositions such as not guilty or dismissal, in circumstances where the City is only authorized to receive convictions or case-pending information), the City will inform the applicant and provide the applicant with a copy of the report and a copy of CHSB’s Information Concerning the Process in Correcting a Criminal Record so that the applicant may pursue correction with the CHSB.

8. If the City of Cambridge is planning to make an adverse decision based on the results of the CORI check, the applicant will be notified immediately. The applicant shall be provided with a copy of the criminal record and the City’s CORI policy, advised of the part(s) of the record that make the individual unsuitable for the position and given an opportunity to dispute the accuracy and relevance of the CORI record.

9. Applicants challenging the accuracy of the criminal record shall be provided a copy of CHSB’s Information Concerning the Process in Correcting a Criminal Record. If the CORI record provided does not exactly match the identification information provided by the applicant, the City of Cambridge will make a determination based on a comparison of the CORI record and documents provided by the applicant. The City of Cambridge may contact CHSB and request a detailed search consistent with CHSB policy.

10. If the City of Cambridge reasonably believes the record belongs to the applicant and is accurate, then the determination of suitability for the position will be made. Unless otherwise provided by law, factors considered in determining suitability may include, but not be limited to the following:

   (a) Relevance of the crime to the position sought;
   (b) The nature of the work to be performed;
   (c) Time since the conviction;
   (d) Age of the candidate at the time of offense;
   (e) Seriousness and specific circumstances of the offense;

Signature of Bidder ______________________________________________________________
(f) The number of offenses;  
(g) Whether the applicant has pending charges;  
(h) Any relevant evidence of rehabilitation or lack thereof;  
(i) Any other relevant information, including information submitted by  
the candidate or requested by the City.

11. The Personnel Department will assist affected departments in assessing the suitability  
of candidates in accordance with paragraph 10 a through i above, to ensure consistency, fairness,  
and protection of employment opportunities and the public interest.

12. The City of Cambridge will notify the applicant of the decision and the basis of the decision in a  
timely manner.

13. CORI information shall not be disseminated or shared with any unauthorized employees or other,  
but shall be maintained in confidence consistent with the obligations of law.

Revised May 5, 2007
ORDINANCE NUMBER 1312

Final Publication Number 3155. First Publication in the Chronicle on December 13, 2007.

City of Cambridge

In the Year Two Thousand and Eight

AN ORDINANCE

In amendment to the Ordinance entitled “Municipal Code of the City of Cambridge”

Be it ordained that Cambridge Municipal Code Chapter 2.112 is hereby amended by adding a new Section 2.112.060 entitled “CORI Screening by Vendors of the City of Cambridge” as follows:

Adding after Section 2.112.050 the following new sections:

SECTION 2.112.060

CORI SCREENING BY VENDORS OF THE CITY OF CAMBRIDGE

Sections:

2.112.061 Purpose
2.112.062 Definitions
2.112.063 CORI-Related Standards of the City of Cambridge
2.112.064 Waiver
2.112.065 Applicability

2.112.061 Purpose

These sections are intended to ensure that the persons and businesses supplying goods and/or services to the City of Cambridge deploy fair policies relating to the screening and identification of persons with criminal backgrounds through the CORI system.

2.112.062 Definitions

Unless specifically indicated otherwise, these definitions shall apply and control.

Awarding Authority means the City of Cambridge Purchasing Agent or designee.

Vendor means any vendor, contractor, or supplier of goods and/or services to the City of Cambridge.

2.112.063 CORI-Related Standards of the City of Cambridge

The City of Cambridge employs CORI-related policies, practices and standards that are fair to all persons involved and seeks to do business with vendors that have substantially similar policies, practices and standards. The City of Cambridge will do business only with vendors who, when required by law to perform CORI checks, employ CORI-related policies, practices, and standards that are consistent with policies, practices and standards employed by the City of Cambridge. The awarding authority shall consider any vendor’s deviation from policies, practices and standards employed by the City of Cambridge as grounds for rejection, rescission, revocation, or any other termination of the contract.

2.112.064 Waiver

Signature of Bidder__________________________________________________
The City Manager may grant a waiver to anyone who or which has submitted a request for waiver if it is objectively reasonable; and the City Manager, or a delegate, shall report promptly in writing to the City Council all action taken with respect to every request for a waiver and the reasons for the decision.

2.112.065  Applicability

If any provision of these sections imposes greater restrictions or obligations than those imposed by any other general law, special law, regulation, rule, ordinance, order, or policy then the provisions of these sections shall control.

In City Council January 28, 2008.
Passed to be ordained by a yea and nay vote:-
Yeas 9; Nays 0; Absent 0.
Attest:- D. Margaret Drury, City Clerk.

A true copy;

ATTEST:-

D. Margaret Drury
City Clerk
Chapter 2.121

LIVING WAGE ORDINANCE

Sections:

2.121.010 Title and Purpose
2.121.020 Definitions
2.121.030 Living Wage
2.121.040 Waivers and Exceptions
2.121.050 Notification Requirements
2.121.060 Duties of covered Employers
2.121.070 Community Advisory Board
2.121.080 Enforcement
2.121.090 Severability
2.121.100 Effective Date

2.121.010 Title and Purpose.

This Chapter shall be known as the "Cambridge Living Wage Ordinance". The purpose of this ordinance is to assure that employees of the City of Cambridge and employees of City contractors, subcontractors and beneficiaries of tax abatements, loans, grants, subsidies and other assistance provided by the City earn an hourly wage that is needed to support a family of four.

2.121.020 Definitions.

For the purposes of this ordinance, the term:

(a) "Applicable Department" means the Personnel Department for employees of the City of Cambridge, the Purchasing Department, with the advice and assistance of the appropriate department which receives the services, for Covered Employers who contract or subcontract with the City of Cambridge, the School Department for employees, contractors and subcontractors of the School Department, and the City Manager’s Office for any other Person who is a Beneficiary of assistance other than a contract or subcontract.

(b) "Assistance" means:

(1) any grant, loan, tax incentive, bond financing, subsidy, or other form of assistance valued at least $10,000 that an employer receives by or through the authority or approval of the City of Cambridge, including, but not limited to, c. 121A tax abatements, industrial development bonds, Community Development Block Grant (CDBG) loans and grants, Enterprise Zone designations awarded after the effective date of this Chapter, and the lease of city owned land or buildings below market value; and

(2) any service contract, as defined herein, of at least $10,000 with the City of Cambridge that is made with an employer to provide services pursuant to G.L.c. 30B or other public procurement laws, awarded, renegotiated or renewed after the effective date of this Chapter.

(3) any service subcontract, as defined herein, of at least $10,000.

(c) "Beneficiary" means:

(1) any person who is a recipient of Assistance;

(2) any company or person that is a tenant or sub-tenant, leaseholder or sub-leaseholder of a recipient of Assistance, provided that said company or person employs at least 25 persons and occupies property or uses equipment or property that is improved or developed as a result of Assistance, after the effective date of this Chapter; and
File No. 8650 Refurbishment of Pierce Vehicle for CFD - submitted prior to Thursday, June 27th, 2019 @11:00am

(d) "Covered Employer" means the City of Cambridge or a Beneficiary of Assistance.

(e) "Covered Employee" means:
   (1) a person employed by the City of Cambridge except for persons in those positions listed in Section 2.121.040(j) of this ordinance; and
   (2) a person employed by a Covered Employer, or a person employed by an independent contractor doing business with a Covered Employer, who would directly expend any of his or her time on the activities funded by the contract or the activities for which the Beneficiary received the Assistance, except for persons in those positions listed in Section 2.121.040(j) of this ordinance.

(f) "Living Wage" has the meaning stated in Section 2.121.030.

(g) "Person" means one or more of the following or their agents, employees, servants, representatives, and legal representatives: individuals, corporations, partnerships, joint ventures, associations, labor organizations, educational institutions, mutual companies, joint-stock companies, trusts, unincorporated organizations, trustees, trustees in bankruptcy, receivers, fiduciaries, and all other entities recognized at law by the Commonwealth of Massachusetts.

(h) “Service Contract” means a contract let to a contractor by the City of Cambridge for the furnishing of services, to or for the City, except contracts where services are incidental to the delivery of products, equipment or commodities. A contract for the purchase or lease of goods, products, equipment, supplies or other property is not a “service contract” for the purposes of this definition.

(i) “Service Subcontract” means a subcontract primarily for the furnishing of services, to or for a recipient of Assistance, except where services are incidental to the delivery of products, equipment or commodities. A contract for the purchase or lease of goods, products, equipment, supplies or other property is not a “service subcontract” for the purposes of this definition.

2.121.030 Living Wage.

(a) Applicability. Covered Employers shall pay no less than the Living Wage to their employees.

(b) Amount of wage. The Living Wage shall be calculated on an hourly basis and shall be no less than $10.00, subject to adjustment as provided herein. The Living Wage shall be upwardly adjusted each year no later than March first in proportion to the increase at the immediately preceding December 31 over the year earlier level of the Annual Average Consumer Price Index for All Urban Consumers (CPI-U) Boston-Lawrence-Salem, MA - NH, as published by the Bureau of Labor Statistics, United States Department of Labor applied to $10.00.

(c) No reduction in collective bargaining wage rates. Nothing in this Chapter shall be read to require or authorize any beneficiary to reduce wages set by a collective bargaining agreement.

(d) Cuts in non-wage benefits prohibited. No Beneficiary will fund wage increases required by this Chapter, or otherwise respond to the provisions of this Chapter, by reducing the health, insurance, pension, vacation, or other non-wage benefits of any of its employees.

2.121.040 Waivers and Exceptions.

(a) Waivers. A Covered Employer may request that the City Manager grant a partial or whole waiver to the requirements of this Chapter.

(b) General Waivers. Waivers may be granted where application of this Chapter to a particular form of Assistance is found by the City Solicitor to violate a specific state or federal statutory, regulatory or constitutional provision or provisions, and the City Manager approves the waiver on that basis.

Signature of Bidder__________________________________________________
(c) Hardship Waivers for certain not-for-profit employers. An employer, who has a contract with the City of Cambridge which is not subject to the provisions of G.L. c. 30B, may apply to the City Manager for a specific waiver where payment of the Living Wage by a not-for-profit Covered Employer would cause a substantial hardship to the Covered Employer.

(d) Chapter 30B contract waivers. Prior to issuing an invitation for bids for a procurement contract subject to the provisions of G.L. c. 30B, any Applicable Department may apply to the City Manager for a waiver of the application of the Living Wage to the contract where payment of the Living Wage by a Covered Employer would make it inordinately expensive for the City to contract for the services or would result in a significant loss of services, because the contracted work cannot be segregated from the other work of the Covered Employer.

(e) General Waiver Request Contents. All General Waiver requests shall include the following:
   (1) The nature of the Assistance to which this Chapter applies;
   (2) The specific or official name of the Assistance and Assistance program, the statutory or regulatory authority for the granting of the Assistance, and a copy of that authority;
   (3) The conflicting statutory, regulatory, or constitutional provision or provisions that makes compliance with this Chapter unlawful, and a copy of each such provision; and
   (4) A factual explication and legal analysis of how compliance with this Chapter would violate the cited provision or provisions, and the legal consequences that would attach if the violation were to occur.

(f) Hardship Waiver Request Contents. All Hardship Waiver requests shall include the following:
   (1) The nature of the Assistance to which this Chapter applies;
   (2) A detailed explanation of why payment of the Living Wage would cause a substantial hardship to the Covered Employer; and
   (3) A statement of proposed wages below the Living Wage.

(g) Chapter 30B Contract Waiver Request Contents. A Chapter 30B contract waiver request shall include the following:
   (1) The nature of the Assistance to which this Chapter applies;
   (2) A detailed explanation of why the contracted work cannot be segregated from the other work of the bidding Covered Employers thereby making the cost of the contract with the payment of the Living Wage inordinately expensive or would result in a significant loss of services;

(h) Community Advisory Board review and recommendation regarding waiver requests. The Community Advisory Board, as described in Section 2.121.070 of this ordinance, shall consider waiver requests along with their supporting documentation and analysis, and may hold a public hearing to consider the views of the public before making a recommendation to the City Manager regarding the waiver request. For a hardship waiver, the Community Advisory Board shall offer an opportunity to be heard to employees of the Covered Employer. After reviewing the recommendation of the Community Advisory Board, the City Manager may approve and grant or deny all or part of a request. The City Manager may in his or her discretion grant a temporary hardship waiver pending the hearing before the Community Advisory Board. For Chapter 30B contract waivers, the Community Advisory Board shall make its recommendation to the City Manager no more than thirty days after it is notified of the request for a Chapter 30B contract waiver.

(i) Terms of exceptions. If an employer is subject to this Chapter as a result of its receipt of more than one kind of Assistance covered by this Chapter, and if the City Manager grants a waiver with respect to one form of Assistance, the City Manager need not find that this Chapter is inapplicable to the employer with respect to another form of Assistance received by the employer.

(j) Exceptions. The following positions will be excepted from the requirement of the payment of the Living Wage upon certification in an affidavit in a form approved by the Applicable Department and signed by a principal officer of the Covered Employer that the positions are as follows:

Signature of Bidder__________________________________________________
(1) youth hired pursuant to a city, state, or federally funded program which employs youth as defined by city, state, or federal guidelines, during the summer, or as part of a school to work program, or in other related seasonal or part-time program;

(2) work-study or cooperative educational programs;

(3) trainees who are given a stipend or wage as part of a job training program that provides the trainees with additional services, which may include, but are not limited to, room and board, case management, or job readiness services.

(4) persons working in a recognized supported employment program that provides workers with additional services, which may include, but are not limited to, room and board, case management, counseling, or job coaching:

(5) positions where housing is provided by the employer;

(6) employees who are exempt from federal or state minimum wage requirements; and

(7) individuals employed by the City of Cambridge where the employment of such individuals is intended primarily to provide a benefit or subsidy to such individuals, although the City is compensating them for work performed.

2.121.050 Notification Requirements.

All Applicable Departments shall provide in writing an explanation of the requirements of this ordinance in all requests for bids for service contracts and to all persons applying for Assistance as defined by this ordinance. All persons who have signed a service contract with the City of Cambridge or a contract for Assistance shall forward a copy of such requirements to any person submitting a bid for a subcontract on the Assistance contract.

2.121.060 Duties of Covered Employers.

(a) Notification Requirements. Covered employers shall provide each Covered employee with a fact sheet about this ordinance and shall post a notice about the ordinance in a conspicuous location visible to all employees. The fact sheet and poster shall be provided to the Covered Employer by the Applicable Department and shall include:

(1) notice of the Living Wage amount;

(2) a summary of the provisions of this ordinance;

(3) a description of the enforcement provisions of the ordinance;

(4) the name, address, and phone number of a person designated by the Applicable Department to whom complaints of noncompliance with this ordinance should be directed.

(b) Contract for Assistance. At the time of signing a contract for assistance with the City of Cambridge or with a Beneficiary, the contract must include the following:

(1) the name of the program or project under which the contract or subcontract is being awarded;

(2) a local contact name, address, and phone number for the Beneficiary;

(3) a written commitment by the Beneficiary to pay all Covered Employees not less than the Living Wage as subject to adjustment under this ordinance and to comply with the provisions of this ordinance;

(4) a list of Covered Employees under the contract with the employees’ job titles;

(5) a list of all subcontracts either awarded or that will be awarded to Beneficiaries with funds from the Assistance. Upon signing any subcontracts, the Covered Employer shall forward a copy of the subcontract to the Applicable Department.

(c) Maintenance of payroll records. Each Covered Employer shall maintain payrolls for all Covered Employees and basic records relating thereto and shall preserve them for a period of three years. The records shall contain the name and address of each employee, the job title and classification, the number of hours worked each day, the gross wages, deductions made, actual wages paid, and copies of social security wage and withholding reports, and evidence of payment thereof and such other data as may be required by the Applicable Department from time to time.
(d) **Applicable Department duties.** The Applicable Department shall cause investigations to be made as may be necessary to determine whether there has been compliance with this Ordinance. The Applicable Department shall report the findings of all such investigations to the Community Advisory Board.

(e) **Covered Employer to cooperate.** The Covered Employer shall submit payroll records on request to the Applicable Department. The Covered Employer shall permit City representatives to observe work being performed upon the work site, to interview employees and to examine the books and records relating to the payrolls being investigated to determine payment of wages.

(f) **City Assistance Reports.** Each Applicable Department shall file a City Assistance Report with the City Manager and the Community Advisory Board by July 31 of each year. The report shall include, for each Assistance package or contract approved during the preceding fiscal year:

1. the name of the Applicable Department (awarding agency), the name of the specific program under which the Assistance was awarded, and the origin of funds for Assistance;
2. a description of the purpose or project for which the Assistance was awarded;
3. the name, address, and phone number of a local contact person for the Covered Employer;
4. the total cost to the City of Assistance provided to each Beneficiary, including both face-value of Assistance, as well as revenue not collected as a result of the Assistance.

2.121.070 **Community Advisory Board.**

(a) **Purpose.** The purpose of the Community Advisory Board shall be to review the effectiveness of this Ordinance at creating and retaining Living Wage jobs, to make recommendations to the City Manager regarding the granting of Waivers to Covered Employers, to review the implementation and enforcement of this ordinance, and to make recommendations from time to time in connection therewith.

(b) **Composition.** The Community Advisory Board shall be composed of nine members and shall include representatives of labor unions, community organizations and the business community. All members will be appointed by the City Manager. Members of the Board shall serve a three-year term. Whenever a vacancy shall occur the City Manager shall appoint a replacement within thirty days of said vacancy.

(c) **Meetings.** The Community Advisory Board shall meet quarterly and in special session as required. All meetings of the Board shall be open to the public and will allow for public testimony on the uses of the City Assistance generally, and on specific instances of Assistance or proposed Assistance as received or sought by individual enterprises.

(d) **Conflict of Interest.** No member of the Community Advisory Board shall participate in any proceeding concerning a Beneficiary, a Covered Employer or a Covered Employee, or applicant for waiver or exemption, if the member or any member of his or her immediate family has a direct or indirect financial interest in the outcome of said proceeding.

2.121.080 **Enforcement.**

(a) **Enforcement powers.** In order to enforce this Chapter, the Applicable Department may, with the approval and assistance of the City Solicitor, issue subpoenas, compel the attendance and testimony of witnesses and production of books, papers, records, and documents relating to payroll records necessary for hearing, investigations, and proceedings. In case of failure to comply with a subpoena, the City may apply to a court of appropriate jurisdiction for an order requiring the attendance and testimony of witnesses and the productions of books, papers, records, and documents. Said court, in the case of a refusal to comply with any such subpoena, after notice to the person subpoenaed, and upon finding that the attendance or testimony of such witnesses or the production of such books, papers, records, and documents, as the case may be, is relevant or necessary for such hearings, investigations, or proceedings, may issue an order requiring the attendance or testimony of such witnesses or the production of such documents and any violation of the court's order may be punishable by the court as contempt thereof.

Signature of Bidder__________________________________________________
(b) Complaint procedures. An employee who believes that he or she is a Covered Employee or an applicant for a position to be filled by a Covered Employee who believes that his or her employer is not complying with requirements of this Chapter applicable to the employer may file a complaint with the Applicable Department or with the Community Advisory Board. Complaints of alleged violations may also be filed by concerned citizens or by the City Council. Complaints of alleged violations may be made at any time, but in no event more than three years after the last date of alleged violation, and shall be investigated promptly by the Applicable Department. Statements written or oral, made by an employee, shall be treated as confidential and shall not be disclosed to the Covered Employer without the consent of the employee.

(c) Investigations and hearings. The Applicable Department shall investigate the complaint, and may, in conjunction with the City Solicitor, and in accordance with the powers herein granted, require the production by the employer of such evidence as required to determine compliance. Prior to ordering any penalty the applicable Department shall give notice to the employer and conduct a hearing. If at any time during these proceedings, the employer voluntarily makes restitution of the wages not paid to the employee making the complaint and to any similarly situated employees, by paying all back wages owed plus interest at the average prior year Massachusetts passbook savings bank rate, or otherwise remedies the violation alleged if the violation involves matters other than wages, then the Applicable Department shall thereafter dismiss the complaint against the employer.

(d) Remedies. In the event that the Applicable Department, after notice and hearing, determines that any Covered Employer has failed to pay the Living Wage rate or has otherwise violated the provisions of this Chapter, the Applicable Department may order any or all of the following penalties and relief:

1. Fines up to the amount of $300 for each Covered Employee for each day that the Covered Employer is in violation of this Ordinance, except if the violation was not knowing and willful, then the total fine shall not exceed the amount of back wages plus interest owed;
2. Suspension of ongoing contract and subcontract payments;
3. Ineligibility for future City Assistance for up to three years beginning when all penalties and restitution have been paid in full. In addition, all Covered Employers having any principal officers who were principal officers of a barred beneficiary shall be ineligible under this section; and
4. Any other action deemed appropriate and within the discretion and authority of the city.

Remedies in this section shall also apply to the party or parties aiding and abetting in any violation of this chapter.

(e) Private right of action. Any Covered Employee, or any person who was formerly employed by a Beneficiary, may bring an action to enforce the provisions of this Chapter to recover back pay and benefits, attorneys fees and costs, by filing suit against a Beneficiary in any court of competent jurisdiction.

(f) Remedies herein non-exclusive. No remedy set forth in this Chapter is intended to be exclusive or a prerequisite for asserting a claim for relief to enforce the right granted under this Chapter in a court of law. This Chapter shall not be construed to limit an employee’s right to bring a common law cause of action for wrongful termination.

(g) Retaliation and discrimination barred. A Covered Employer shall not discharge, reduce the compensation or otherwise retaliate against any employee for making a complaint to the City, otherwise asserting his or her rights under this Chapter, participating in any of its proceedings or using any civil remedies to enforce his or her rights under the Chapter. The City shall investigate allegations of retaliation or discrimination and shall, if found to be true, after notice and a hearing, order appropriate relief as set out in paragraphs (c) and (d) herein.

2.121.090 Severability.

In the event any provision of this ordinance shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provisions hereof.

2.121.100 Effective Date.
This law shall be effective sixty (60) after final passage. The Living Wage Ordinance (2.121) provides, at 1.121.030(b) that the wage shall be upwardly adjusted each year no later than March 1st in proportion to the increase in the Annual Average Consumer Price Index for the prior calendar year for All Urban Consumers (CPI-U) in the Boston area, as published by the federal Bureau of Labor Statistics.

For calendar year 1999, the CPI-U increased by 2.5%. Therefore the new living wage, as of March 1, 2000 is $10.25.

For calendar year 2000, the CPI-U increased by 4.3%. Therefore the new living wage, as of March 1, 2001 is $10.68.

For calendar year 2001, the CPI-U increased by 4.3%. Therefore the new living wage, as of March 1, 2002 is $11.11.

For calendar year 2002, the CPI-U increased by 2.6%. Therefore the new living wage, as of March 1, 2003 is $11.37. The City Council has voted to amend the section of the Living Wage Ordinance (1.121.030 (b) that provides the method for calculating cost of living increases each year. As a result of this change, the living wage as of March 30, 2003 is $11.44.

For calendar year 2003, the CPI-U increased by 3.76%. Therefore the new living wage, as of March 1, 2004 is $11.87.

For calendar year 2004, the CPI-U increased by 2.7%. Therefore the new living wage, as of March 1, 2005 is $12.19.

For calendar year 2005, the CPI-U increased by 3.3%. Therefore the new living wage, as of March 1, 2006 is $12.59.

For calendar year 2006 the CPI-U increased by 3.1%. Therefore the new living wage, as of March 1, 2007 is $12.98.

For calendar year 2007 the CPI-U increased by 1.9%. Therefore the new living wage, as of March 1, 2008 is $13.23.

For calendar year 2008 the CPI-U increased by 3.5%. Therefore the new living wage, as of March 1, 2009 is $13.69.

For calendar year 2009 the CPI-U decreased by .67%. Therefore the new living wage, as of March 1, 2010 will remain at $13.69.

For calendar year 2010 the CPI-U increased by 1.57%. Therefore the new living wage, as of March 1, 2011 is $13.90.

For calendar year 2011 the CPI-U increased by 2.71%. Therefore the new living wage, as of March 1, 2012 is $14.28.

For calendar year 2012 the CPI-U increased by 1.58%. Therefore the new living wage, as of March 1, 2013 is $14.51.

For calendar year 2013 the CPI-U increased by 1.37%. Therefore the new living wage, as of March 1, 2014 is $14.71.

For calendar year 2014 the CPI-U increased by 1.61% Therefore the new living wage, as of March 1, 2015 is $14.95.
For calendar year 2015 the CPI-U increased by .06%, Therefore the living wage, as of March 1, 2016 is $15.04.

For calendar year 2016 the CPI-U increased by 1.47% Therefore the new living wage, as of March 1, 2017 is $15.26.

For calendar year 2017 the CPI-U increased by 2.51% Therefore the new living wage, as of March 1, 2018 is $15.64.

For calendar year 2018 the CPI-U increased by 3.29% Therefore the new living wage, as of March 1, 2019 is $16.15.
This agreement is made and entered into this ____________, by and between the **City Of Cambridge** ("the CITY"), a municipal corporation organized and existing under the laws of the Commonwealth of Massachusetts, and ____________, existing under the laws of the State of ________________ ("the Contractor").

**Address:**

**Telephone, Fax, E-mail:**

**Article I. Definition.** "This Contract" as used herein shall mean these Articles of Agreement and "the bid documents," which include, but are not limited to, the instructions to bidders, the Contractor’s bid or proposal, the specifications, the general conditions, the requirements, the applicable addenda, and all documents and forms submitted with the Contractor's bid or proposal that were accepted by the City.

**Article II. Duration.** The Contractor shall commence the performance of this contract for the period beginning on __________ and ending on ____________.

**Article III. Terms.** The Contractor agrees to provide the services all in accordance with the bid documents of (bid opening date) or (proposal if appropriate).

**Contract Value:**

**Article IV. Payment.** The City agrees to pay to Contractor the sum set forth in the Contractor's bid or proposal. **Contractor shall invoice department to which it provided the service, not the Purchasing Department.**

**Article V. Termination.** The following shall constitute events of default under this Contract requiring immediate termination: a) any material misrepresentation made by the Contractor, b) any failure by the Contractor to perform any of its obligations under this Contract including, but not limited to, the following: (i) failure to commence performance of this Contract at the time specified in this Contract due to a reason or circumstance within the Contractor's reasonable control, (ii) failure to perform this Contract with sufficient personnel and equipment or with sufficient material to ensure the completion of this Contract within the specified time due to a reason or circumstance within the Contractor's reasonable control, (iii) failure to perform this Contract in a manner reasonably satisfactory to the City, (iv) failure to promptly re-perform within reasonable time the services that were rejected by the City as erroneous or unsatisfactory, (v) discontinuance of the services for reasons not beyond the Contractor's reasonable control, (vi) failure to comply with a material term of this Contract, including, but not limited to, the provision of insurance and nondiscrimination, and (vii) any other acts specifically and expressly stated in this Contract as constituting a basis for termination of this Contract.

Except as otherwise provided in the Articles of Agreement, the City may terminate the contract upon seven days notice.

**Article VI. Damages.** From any sums due to the Contractor for services, the City may keep for its own the whole or any part of the amount for expenses, losses and damages as directed by the Purchasing Agent, incurred by the City as a consequence of procuring services as a result of any failure, omission or mistake of the Contractor in providing services as provided in this Contract.
Article VII. Conflict. In the event there is a conflict between these Articles and the bid documents, the bid documents shall supersede these articles.

Article VIII. Governing laws and ordinances. This Contract is made subject to all the laws of the Commonwealth and the Ordinances of the City and if any such clause thereof does not conform to such laws or ordinances, such clause shall be void (the remainder of the Contract shall not be affected) and the laws or ordinances shall be operative in lieu thereof.

Article IX. Performance Security. Upon execution of this Contract by the Contractor, the Contractor shall furnish to the City security for the faithful performance of this Contract in the amount of __0%__ of the value of the bid in the form of a performance bond issued by a surety satisfactory to the city or in the form of a certified check.

Article X. Equal Opportunity. The Contractor in the performance of all work under this contract will not discriminate on the grounds of race, color, sex, age, religious creed, disability, national origin or ancestry, sexual orientation, marital status, family status, military status, or source of income in the employment practices or in the selection or retention of subcontractors, and in the procurement of materials and rental of equipment. The city may cancel, terminate or suspend the contract in whole or in part for any violation of this article.

Article XI. Assignability. The Contractor shall not assign, sell, subcontract or transfer any interest in this contract without prior written consent of the city.

In witness whereof the parties have hereto and to three other identical instruments set their hands the day and year first above written.

Approved as to Form: The Contractor:

____________________________  ______________________________
Nancy E. Glowa                 Signature and Title
City Solicitor

____________________________
City Manager

____________________________
Elizabeth Unger
Purchasing Agent

Signature of Bidder _______________________________