



WILLIAMSON COUNTY

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December 7, 2017

To Whom It May Concern:

Williamson County is accepting bids for Self-Contained Breathing Apparatus for the Office of Public Safety. Minimum bid specifications are enclosed. Please note any exceptions to the bid. We are requesting that bidders agree to hold their price for twelve months from date of award of bid. We are requesting that pricing be extended to the cities of Brentwood, Fairview, Franklin and Spring Hill.

It is not the intent of Williamson County to favor one vendor; however, we do, from time to time, have to rely on vendors' help in writing specifications. We will accept all bids with exceptions noted, and all bids will be given equal consideration.

Bids will be opened on Tuesday, January 9, 2018, 2:00 p.m. Bids should be submitted in a sealed envelope to the County Mayor's Office, 1320 West Main Street, Suite 125, Franklin, TN 37064. Each envelope should be plainly marked: **Bid – SCBA Equipment Bids, January 9, 2018, 2:00 p.m. Envelope must also include bidder's company name. PLEASE NOTE: IF THE SEALED PACKAGE IS NOT LABELED EXACTLY AS SPECIFIED ABOVE, THE BID WILL NOT BE OPENED.**

Williamson County reserves the right to reject any and/or all proposals, to waive technicalities or informalities, and to accept any proposal deemed to be in the best interest of Williamson County. **No bid shall be valid unless signed.** No bid shall be accepted by FAX machine.

Enclosed is an *Ethical Standards Affidavit* and *Business Tax and License Affidavit*. Please complete these documents and return them with your bid.

If you have any questions, please e-mail lesliem@williamson-tn.org. All questions must be submitted in writing by 4:30 p.m. CST on January 3, 2018. No addenda will be issued within 48 hours of the bid opening date and time.

Sincerely,

Leslie Mitchell, CPPO, CPPB
Purchasing Agent

LM/lw
Enclosure

BIDDERS INSTRUCTIONS

It is **not** the intent of Williamson County to exclude any vendor from participating in the bid for these SCBA. Deviations from Bid Specifications will disqualify a bid proposal. The Bid Specifications represent equipment suitable for the needs of the Fire Department. The final decision, however, will consider all elements of the bid proposal, which represent the best combination of price, features, interoperability, and services as determined based on an evaluation of all proposals submitted.

Use the attached "Specification Checklist" to indicate compliance or non-compliance with each Bid Specification. Any item that is bid, which deviates from the Bid Specification must be explained in detail on a separate sheet(s) and enclosed with the bid proposal. This must be marked as an "Exception" and indicate the explanation for each deviation from the Bid Specifications.

The bidder shall provide with their bid, fully descriptive literature on the product proposed.

In addition to the items mentioned above, each bid submitted must include completed "Specifications Checklist" along with any additional pages of explanations of exceptions, and a completed "Bid Sheet".

These bids shall be available to other departments in the State of Tennessee and be honored until the bid expires.

Bids must be valid for 60 calendar days from date of bid opening.

TECHNICAL SPECIFICATIONS CHECKLIST

Note: The winning bidder shall deliver equipment & provide all shipping and handling cost.

General Self-Contained Breathing Apparatus Requirements

The purpose of this bid specification is to establish the minimum requirements for an open-circuit self-contained breathing apparatus (SCBA). The SCBA shall be a Scott X3 and consist of the following major sub-assemblies: (1) full facepiece assembly; (2) a removable, facepiece-mounted, positive pressure breathing regulator with air-saver switch; (3) an automatic dual path redundant pressure reducing regulator; (4) end-of-service time indicators; (5) a harness and backframe assembly for supporting the equipment on the body of the wearer; (6) a shoulder strap mounted, remote gauge indicating cylinder pressure; (7) a rapid intervention crew/ universal air connection (RIC/UAC); and a cylinder and valve assembly for storing breathing air under pressure.

The successful bidder agrees to provide, at their own expense, a factory trained instructor for such time as the respirator user shall require complete instruction in the operation and maintenance of the respirator. **Any exceptions to these specifications must be detailed in a separate attachment. Failure to do so will automatically disqualify the bidder.**

The successful bidder must be a sales distributor and have a factory authorized service center to test, inspect, service, and repair all SCBA and supplied air products, including thermal imaging camera products, compressor products and portable gas detection products, and sell the equipment specified herein. The bidder must also possess mobile service capabilities to deliver service to the customer at their location, satisfy equipment and special tool requirements, maintain adequate inventory and spare parts levels. **A signed document from the manufacture confirming this must be included with the bid.**

Required Components	Product		
	Meets	Does Not Meet	Exception
<i>Facepiece</i>			
The facepiece shall have a large diameter inlet serving as the female half of a quarter (1/4) turn coupling which mates with the positive pressure breathing regulator.			
The facepiece shall be approved for use with multiple respiratory applications to enable the same user to switch from one application to another without the use of tools and without doffing the facepiece.			
The full facepiece assembly shall fit persons of varying facial shapes and sizes with minimal visual interference.			
The full facepiece assembly shall be available in three sizes marked "S" for Small, "M" for medium, and "L" for Large.			
The facepiece sizes shall be easily identifiable through a color-coding scheme.			

The facepiece assembly, including head harness, shall be latex free.			
The facepiece series shall have a face seal that is secured to the lens by a U-shaped channel frame that is retained to the lens using two fasteners.			
The face seal shall be a reverse reflex design for enhanced fit and comfort.			
The facepiece shall contain inhalation valves that are readily visible to enable quick visual inspection.			
The lens shall be a single, replaceable, modified cone configuration constructed of a non-shatter type polycarbonate material.			
In accordance with NIOSH 42 CFR part 84, the facepiece meets penetration and impact requirements, including compliance with ANSI Z87.1 – 2010.			
The lens shall have a coating to resist abrasion and chemical attack and meet the requirements of NFPA-1981, for lens abrasion.			
The lens shall have an internal anti-fog coating to reduce fogging of the lens.			
Multi-directional voicemitters shall be mounted on both sides of the facepiece and ducted directly to an integral silicone nose-cup to enhance voice transmission.			
The facepiece assembly shall be able to incorporate multiple Scott electronic communications options (amplification, radio interface, wireless, etc.) without affecting NIOSH approvals or NFPA/CBRN approvals where applicable.			
The facepiece shall enable the installation of communications bracket on either the right or left side.			
The head harness shall be a five-point suspension made in the fashion of a net hood to minimize interference between securing of the facepiece and the wearing of head protection, and be constructed of a para-aramid material for fire, first responder and CBRN applications.			
	Product		

<i>Mask-Mounted Regulator</i>	Meets	Does Not Meet	Exception
The facepiece-mounted positive pressure-breathing regulator shall supply and maintain air to the facepiece to satisfy the needs of the user at a pressure greater than atmospheric by no more than 1.5 inches of water pressure static.			
The breathing regulator shall maintain positive pressure during flows of up to 500 standard liters per minute.			
The regulator shall also meet or exceed a dynamic flow requirement of remaining positive while supplying a minute volume of 160 liters.			
The breathing regulator shall have attached a low pressure hose which shall be threaded through the left shoulder strap to couple to the pressure reducing regulator mounted on the backframe.			
The breathing regulator shall be available with a quick connect coupling in line to allow the breathing regulator to be disconnected from the unit and reconnected to the auxiliary hose of a second unit in the event rescue is required.			
The quick connect coupling shall be easily connected and disconnected by trained individuals with a gloved hand and/or in low light conditions.			
The quick connect coupling shall not allow the air hose to be connected without the HUD Connection.			
The quick coupling shall also be guarded against inadvertent disconnect during use of the equipment.			
The low-pressure hose shall be equipped with a swivel attachment at the facepiece mounted regulator.			
The regulator shall connect to the facepiece by way of a quarter (1/4) turn coupling.			
The user shall hear an audible sound when the regulator is attached correctly to the facepiece.			
The regulator shall be equipped with a doughnut-shaped gasket which provides a seal against the mating surface of the facepiece.			
The regulator cover shall be fabricated of a flame resistant, high impact plastic.			
The breathing regulator shall have a demand valve to deliver air to the user, activated by a diaphragm responsive to respiration.			

The demand valve shall use an extended temperature range dynamic O-ring seal composed of a fluorosilicone elastomer.			
The diaphragm shall include the system exhalation valve and shall be constructed from a high strength butyl elastomer.			
A purge valve shall be situated at the inlet of the breathing regulator and shall be capable of delivering airflow of between 125 and 175 standard liters per minute.			
The breathing regulator shall be arranged to direct the incoming air over the inner surface of the facepiece for defogging purposes.			
The components of the breathing regulator shall be constructed of materials that are not vulnerable to corrosion.			
The flame resistant cover shall contain an air saver switch and pressure demand bias mechanism.			
It shall reactivate and supply air only in the positive pressure mode when the wearer affects a face seal and inhales.			
This device shall not affect the breathing flow through the system while in operation.			
	Product		
<i>Pressure Reducer with CGA Cylinder Connection</i>	Meets	Does Not Meet	Exception
<p>The pressure-reducing regulator shall be mounted on the backframe and be coupled to the cylinder valve through a short length of internally armored high pressure hose with a hand coupling for engagement and sealing within the cylinder valve outlet.</p> <p>Or</p> <p>The pressure-reducing regulator shall be mounted at the waist on the backframe and be coupled to the cylinder valve through a short length of internally armored high pressure hose with a hand coupling for engagement and sealing within the cylinder valve outlet.</p> <p>The shoulder strap shall be attached to the back plate by way of a single, articulating metal bracket.</p>			
In lieu of a manual by-pass, the pressure-reducing regulator shall include a back-up pressure-reducing valve connected in parallel with the primary pressure reducing valve and an automatic transfer valve for redundant control.			

The back-up pressure reducing valve shall also be the means of activating the low-pressure alarm devices in the facepiece- mounted breathing regulator.			
This warning shall denote a switch from the primary reducing valve to the back-up reducing valve whether from a malfunction of the primary reducing valve or from low cylinder supply pressure.			
A press-to-test valve shall be included to allow bench testing of the back-up reducing valve.			
The pressure-reducing regulator shall have extended temperature range dynamic O-ring seals composed of fluorosilicone elastomer.			
The pressure reducing regulator shall have incorporated a reseatable over-pressurization relief valve which shall prevent the attached low pressure hose and facepiece-mounted breathing regulator from being subjected to high pressure.			
	Product		
<i>End-of-Service Time Indicator (EOSTI)</i>	Meets	Does Not Meet	Exception
The SCBA shall have two end-of-service time indicators (EOSTI).			
A tactile alarm and a Heads-Up Display (HUD).			
The primary EOSTI shall be the integral low-pressure alarm device that shall combine an audible alarm with simultaneous vibration of the facepiece.			
The primary EOSTI shall be located in the Facepiece-Mounted Positive Pressure Regulator.			
This alarm device shall indicate either low cylinder pressure (33% +5%, -0%) or primary first stage regulator failure.			
The HUD shall serve as the secondary EOSTI indicator.			
The HUD shall be powered by the SCBA's single power supply.			
It shall be mounted in the user's field of vision on the Facepiece-Mounted Positive Pressure Regulator.			
It shall display cylinder pressure in increments of 100%, 75%, 50% and 33%.			
The display shall not have a numerical representation of bottle pressure.			

At full bottle pressure, two green Light Emitting Diodes (LED) shall be illuminated.			
At three-quarter bottle pressure, one green LED shall be illuminated.			
At one-half bottle pressure, one “yellow” LED shall be illuminated and flash at a rate not to exceed one (1x) time per second.			
At one-third bottle pressure, one “red” LED shall be illuminated and flash at a rate not to exceed ten (10x) times per second.			
The HUD shall have a low battery indication that is distinct and distinguishable from the bottle pressure indications.			
	Product		
<i>Harness and Backframe Assembly</i>	Meets	Does Not Meet	Exception
A lightweight, lumbar support style backframe and harness assembly shall be used to carry the cylinder and valve assembly and the pressure reducing regulator assembly.			
The backframe shall be a solid, one-piece black powder-coated aluminum frame that is contoured to follow the shape of the user’s back.			
The backframe shall include a mounting for the pressure reducer.			
This mounting shall contain a slide-type bracket permitting positioning of the pressure reducer to accommodate connection to either an angled or straight-type cylinder valve.			
The backframe shall include an over-the-center, adjustable tri-slide fixture, a para-aramid strap and a double-locking latch assembly to secure 30, 45, 60, or 75 minute cylinders.			
The harness assembly shall consist of a one size black para-aramid strap with a yellow stripe.			
This harness shall include box-stitched construction with no screws or bolts.			
The harness assembly shall incorporate parachute-type, quick-release buckles and shall include shoulder and hip pads.			
The harness shall include a seat-belt type waist attachment.			

The shoulder strap shall be fitted with a Drag Rescue Loop (DRL) capable of being deployed in an emergency situation to drag a downed firefighter to safety.			
The shoulder strap shall be attached to the back plate by way of a single, articulating metal bracket.			
The one-piece aluminum backframe should include integrated donning/carry handles.			
The handles shall allow the user to easily don the SCBA in the "over-head" style and also allow the user to carry the SCBA.			
The backframe shall include accommodation and mounting spaces suitable for installation of a distress alarm integrated with the SCBA.			
These mounting spaces shall permit installation of an alarm sensor module in an area between the cylinder hanger locking mechanism and the backframe.			
	Product		
<i>Rapid Intervention Connection</i>	Meets	Does Not Meet	Exception
The SCBA shall incorporate a RIC/UAC fitting to be compliant with the 2013 edition of the NFPA 1981 Self-Contained Breathing Apparatus standard.			
The RIC/UAC shall be an integral part of the high-pressure hose that attaches the cylinder valve to the first stage pressure reducer.			
The RIC/UAC inlet connection shall be within 4" (4-inches) of the tip of the CGA threads of the cylinder valve.			
The RIC/UAC shall consist of a connection for attaching a high-pressure air source and a self-resetting relief valve allowing a higher pressure than that of the SCBA to be attached to the SCBA.			
The RIC/UAC shall have a check valve to prevent the loss of air when the high-pressure air source has been disconnected.			
	Product		
<i>Warranty</i>	Meets	Does Not Meet	Exception
The unit shall be covered by a warranty providing protection against defects in materials or workmanship.			

This warranty shall be for a period of 10 years on the SCBA, except for the pressure reducer, which shall be covered for 15 years.			
Electronic components shall be warranted for at least three years.			
Components	Product:		
<i>Personal Alert Safety System</i>	Meets	Does Not Meet	Exception
The PASS device shall be compliant to the NFPA 1982, 2013 Edition Standard on Personal Alert Safety Systems.			
Operation of this distress alarm shall be initiated with the opening of the valve of an SCBA charged cylinder.			
The system shall feature a “hands-free” re-set capability that may be activated by means of a slight movement of the SCBA when the system is in a pre-alert mode.			
When the PASS device goes into pre-alarm, the user shall be notified through a distinct light pattern in the HUD display.			
The system shall operate from a single power source containing six “AA” batteries.			
The battery life of the SCBA with PASS only shall be no less than 200 hours.			
The system shall have a battery check function that provides an LED indication of battery status while the SCBA is not pressurized.			
The PASS System shall be upgradeable to include a 2.4 GHz integrated locator system.			
The PASS system shall be upgradeable to include a 2.4 GHz integrated SCBA air / PASS (telemetry) management system.			
The PASS device shall contain two components: a Console and a Sensor Module.			
<u>Console</u>			
The console shall be located on the user’s right shoulder strap.			
The console shall contain an integral edge lit mechanical pressure gauge that is automatically energized by opening the cylinder valve.			

The console shall display to the user the following: Pre- Alarm: alternating red flashing LED's; Full Alarm: dual flashing red LED's and a flashing PASS icon; Low Battery: red flashing LED's; Normal System Operation: flashing green LED			
The console shall contain a photo sensing diode to dim and brighten the HUD as the environment changes.			
The console shall contain push buttons for user interface.			
The push buttons shall be designed to minimize accidental activation.			
A yellow color-coded push button shall permit system reset.			
A red color-coded push button shall permit manual activation of the full alarm mode.			
<u>Sensor Module</u>			
The system shall include a sensor module mounted to the SCBA backframe and located in an area between the cylinder and backframe in a manner designed to protect the assembly from damage.			
The sensor module shall contain a motion sensor that is sensitive to user hip movement to reduce false activations.			
The sensor module shall contain redundant, dual sound emitters for the audible alarm and dual visual "buddy" indicators.			
The sensor module sound emitters shall be oriented in multi-directions for optimal sound projection.			
The visual indicators on the backframe mounted sensor module shall flash green during normal operation.			
The visual indicators shall flash red 1) when the device is in pre-alert; 2) when the device is in full-alert; and 3) when the SCBA has reached one-third bottle pressure.			
For Scott X3 When the PASS device goes into pre-alarm, the user shall be notified through a distinct light pattern in the HUD display.			
	Product		
<i>Cylinder</i>	Meets	Does Not Meet	Exception
The cylinder threads shall be straight with an O-ring or quad-ring gasket type seal.			

The cylinder valve shall be a “fail open” type, constructed of forged aluminum and designed such that no stem packing or packing gland nuts are required.			
It shall contain an upper and lower seat such that the pressure will seal the stem on the upper-seat, thus preventing leakage past the stem.			
No adjustment shall be necessary during the life of the valve.			
If the SCBA is equipped with a CGA cylinder connection, the cylinder valve outlet shall be a modification of the Compressed Gas Association (CGA) standard threaded connection number for breathing air for CGA 347 for 4500 systems.			
Each cylinder valve shall consist of the following: 1) a hand activated valve mechanism with a spring-loaded, positive action, ratchet type safety lock and lock-out release for selecting “lock open service” or “non-lock open service”; 2) an upstream connected frangible disc safety relief device; 3) a dual reading pressure gauge indicating cylinder pressure at all times; 4) an elastomeric bumper; 5) an angled outlet.			
Each cylinder and valve assembly shall be equipped with a hanger bracket for positive locking attachment of the assembly to the backframe.			
<i>Carbon Wrapped</i>			
The cylinder shall be manufactured in accordance with DOT specifications and meet the Transport Canada requirements with working pressures of 4500 psig.			
The cylinder shall be lightweight, composite type cylinder consisting of an aluminum alloy inner shell, with a total overwrap of carbon fiber, fiberglass and an epoxy resin.			
The cylinder shall be available in a 45-minute duration based on the NIOSH breathing rate of 40 liters per minute (lpm).			
BID OPTION	Product:		
<i>Electronic Voice Amplifier</i>	Meets	Does Not Meet	Exception
The respirator shall have an optional facepiece-mounted voice amplification device to electronically project the user’s voice.			

<p>The voice amplification device shall be mounted to the facepiece by means of a bracket that is secured around the voice emitter of the facepiece.</p>			
<p>The device shall contain a bayonet-style mounting fixture that enables the user to insert the voice amplifier into the bracket and secure it with a quarter-turn counter-clockwise when it shall lock into place.</p>			
<p>The device shall contain a thumb latch to permit removal when it is pressed and the device is rotated a quarter-turn clockwise.</p>			
<p>The thumb latch shall contain a captive screw that enables the user to prevent removal.</p>			
<p>The device shall weigh no more than 7 ounces 225 (grams) and its size shall not exceed the following dimensions: Length: 3.50 inches; (8.89 cm); width: 2.0 inches (5.08 cm); depth (extension from voice emitter): 1.75 inches (4.44 cm).</p>			
<p>The device shall be able to be upgraded to a voice amplifier, radio interface, and stand-alone radio communication system that all reside in a single housing with a single power source.</p>			
<p>The device shall contain a momentary on/off switch with a tactile indication and audible click when depressed.</p>			
<p>The switch shall be covered with a sheath made of a silicone material.</p>			
<p>The device shall contain an LED which illuminates green when the device is activated and flashes once per second when a low battery condition (approximately 10% of battery life remaining) is present.</p>			
<p>The device shall provide audible tones to indicate that the system has been energized, de-energized and to provide a low battery indication.</p>			
<p>The device shall be powered by three AAA alkaline batteries, which shall provide no less than 50 hours of continuous operation with fully-charged batteries.</p>			
<p>The batteries shall be contained in a gasketed compartment secured in place by means of a fastener.</p>			
<p>The door of the battery compartment shall be user-replaceable.</p>			
<p>The device shall contain an automatic shutdown function that de-energizes the voice amplifier approximately 20 minutes after the last time the user speaks.</p>			

Designed to conserve battery life when a user forgets to turn off the voice amplifier, the voice amplifier shall be reactivated after shut down by pressing the on/off switch.			
The microphone shall be located on the surface of the bayonet mounting fixture and voice projection shall be facilitated by means of a circular gasket that seals the device to the communications mounting bracket.			
The amplifier shall contain a custom speaker designed for pushing sound through background noises commonly found at emergency events.			
The device shall not feedback for longer than 1 second when worn on a level A haz-mat suit.			
The device shall be able to provide a minimum STI score of 0.65, even though NFPA minimum requirement is 0.60.			
The voice amplifier, when attached to a facepiece, shall be able to withstand a 30 minute tumble test.			
A single voice amplifier shall be able to withstand eight, 6 foot drops, once on each side and on two edges.			
The voice amplifier shall be able to withstand a 30 minute tumble test not attached to the facepiece.			

This contract pricing will be extended and guaranteed to any and all units of local governments/political subdivisions including but not limited to county fire departments, city fire departments, volunteer fire departments, county government, municipalities and/or police agencies, other local public or public safety agencies or authorities within Williamson County.

Manufacturer: _____ Model: _____

Does the proposed equipment meet the requested specifications? ___ Yes, ___ No.
If not please attach a complete description of any variances.

Pricing must include delivery.

TOTAL SCBA ASSEMBLY BID PRICE \$ _____

OPTIONS:

FACE PIECE WITH VOICE AMP BRACKET ONLY PRICE \$ _____

SCOTT SITE FACE PIECE \$ _____

SCOTT EPIC 3RDI VOICE AMP ONLY PRICE \$ _____

CYLINDER ONLY PRICE \$ _____

This Price will be good through 31 December 2018: YES ___ NO ___

Vendor: _____

Signature: _____

Type or Print Name: _____

Title: _____

Address: _____ City: _____ St: _____ Zip _____

Phone: _____ Fax: _____

Email: _____

Ethical Standards Affidavit

State of Tennessee

County of Williamson County

Ethical Standards Affidavit. After first being duly sworn according to law, the undersigned ("Affiant") states that he/she has the legal authority to swear to this on behalf of _____, ("Contractor") that no part of any other governmental monies provided for the services or products contemplated in this Agreement which was received from the State of Tennessee or Williamson County shall be paid directly to an employee or official of the State of Tennessee or Williamson County as wages, compensation, or gifts in exchange for acting as a Contractor, officer, agent, employee, subcontractor, or consultant to the County or the Contractor in connection with any Services or Work contemplated or performed relative to this Agreement. Affiant and Contractor further swears that no federally, state, or county appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, any employee of the State of Tennessee, or employee of Williamson County in connection with the awarding of any federal, state, or county contract, the making or awarding of any government grant, the making of any government loan, and entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal, state or county contract, grant, loan, or cooperative agreement.

Affiant

By: _____

Title: _____

Date: _____

Witness: _____

Date _____

Business Tax and License Affidavit

Business Tax and License Affidavit. The undersigned, (“Affiant”), states that he/she has the legal authority to swear to this on behalf of _____, (“Contractor”); that Contractor is not in any manner in violation of *Tennessee Code Annotated, Section, 5-14-108(l)* which provides that “(n)o purchase shall be made or purchase order or contract of purchase issued for tangible personal property or services by county officials or employees, acting in their official capacity, from any firm or individual whose business tax or license is delinquent.” Affiant affirms and warrants that Contractor’s licenses are currently valid and all business taxes have been paid and are current as of the date of this affidavit. Contractor is licensed and pays business taxes in _____ (County), Tennessee.

Affiant

By: _____

Title: _____

Date: _____

Witness: _____

Date: _____