

Christine Sims, Acting Purchasing Manager

# City of Alexandria

Purchasing Department P.O. Box 71 Alexandria, Louisiana 71309-0071



Office: (318) 441-6183 Fax: (318) 619-3415

# ADDENDUM #1

# Bid #2227 – Turn-Out Gear Bid Opening Date: Tuesday, April 2, 2019 10:00 AM CST

**Date:** March 13, 2019

From:Wilma Kelly, Senior BuyerCity of Alexandria Purchasing Department

Please accept this letter as our official notification of changes in the bid specifications for the above mentioned bid. (This addendum is a result of another item added to the bid).

# **Instructions**:

Please <mark>discard your original </mark>bid packet in its entirety</mark> and <u>REPLACE WITH THE NEW BID PACKET,</u> <u>PAGES 1A OF 58A.</u>

Please be sure that the above mentioned amended bid packet has been replaced with the new bid packet <u>before</u> submitting your complete bid packet to the City Clerk's Office or before submitting your bid electronically. Failure to replace the page as instructed above will be grounds for bid rejections.

If you have questions, please do not hesitate to give me a call at (318)441-6162 or (318)441-6180.

/wk

Christine Sims, Acting Purchasing Manager Christine Sims, Acting Purchasing Manager Alexandria, 71309-	DepartmentAlexandriaox 71JouisianaLouisianaOffice: (318) 441-6180	
Sealed bids will be received until <b>10:00 AM</b> , <b>Tuesday, April 2, 2019</b> , and <u>publicly opened</u> in the Council Chambers or Council Committee Room.	City of Alexandria Bid # 2227 Page: 1A of 58A Date Specifications Prepared: February 18, 2019	
<u>Bid Bond Requirements:</u> A bid bond or check for <u>N/A%</u> of the total amount of bid. <u>Performance Bond Requirements:</u> In the event bid is accepted, a performance bond shall be required in the amount of <u>N/A%</u> . <b>INTROD</b>	Please file bid with the following:Donna Jones, City ClerkCity of Alexandria – City Hall915 Third StreetP.O. Box 71Alexandria, LA 71309-0071Phone: 318-449-5047	

# <u>TURN – OUT GEAR – ANNUAL CONTRACT</u>

It is the intent of the City of Alexandria to secure pricing on Turn-Out Gear, for use by the City of Alexandria Fire Department. All items bid shall meet or exceed National Fire Protection Association (NFPA) criteria, NFPA 1971 (2007 Edition), as well as NFPA 1500 (2007 Edition) Overlap Requirements, and be ISO 9001 Certified. All products shall be new and of current manufacture.

All bid prices shall include any and all freight charges.

Bid prices shall remain in effect for a period of twelve (12) months from bid award date. Contingent upon the availability of funds and the ability of the successful bidder to honor the prices bid, the City reserves to right to renew the existing contract for an additional twelve (12) month period.

Orders will be for individual items on an "as needed" basis. No quantities are stated or guaranteed.

<u>Completed bid packet should be returned as issued by the City of Alexandria with ALL PAGES intact</u> and all specification response columns filled in. Incomplete columns or missing pages, to include any addendum pages, may result in the bidder's entire bid being rejected.

Questions and/or clarifications of bid specifications are to be in written form only, either mailed, faxed, or e-mailed to the attention of Wilma Kelly, City of Alexandria – Purchasing Department, P.O. Box 71, Alexandria, LA 71309-0071; Fax #318-619-3415; e-mail <u>wilma.kelly@cityofalex.com</u>; and must be received by close of business on <u>Thursday, March 21, 2019.</u>

# **BIDDER ACKNOWLEDGES RECEIPT OF ADDENDUM #1 DATED MARCH 13, 2019**

# **GENERAL CONDITIONS FOR BIDDERS - PLEASE READ CAREFULLY**

1. Pursuant to LA R.S 38:2212.1. C.(1)(2), any manufacturer's preference in this proposal is descriptive, but non-restrictive, and is used only to indicate minimum requirement for type, grade and quality unless otherwise specified.

2. Pursuant to LA R.S. 38:2212 B.(1), the provisions and requirement of this bid shall not be considered as informalities and shall not be waived by the City of Alexandria. Therefore, conditions and specifications on this bid form shall be strictly enforced and any and all alterations, deviations, and non-compliance to said conditions and specifications, either on the bid form or by separate attachment, shall be grounds for immediate disqualification.

3. Preference shall be given to bidders quoting F.O.B. Destination (the City of Alexandria using department), FREIGHT PREPAID, unless otherwise requested.

4. Each bidder shall submit his proposal on the proposal form furnished by the City of Alexandria Purchasing Department. The complete bid package must be returned as issued by the City with all pages intact and all specification response columns filled in. Incomplete columns or missing pages, to include addendum pages, shall result in the vendor's entire bid package being rejected.

5. Literature, brochures, and other related paperwork attached to the bid should be identified with the name of the bidder and bid item number.

6. In case of a mathematical discrepancy between unit price and extensions, the unit price shall prevail.

7. Pursuant to LA R.S. 38:2212 F., the bid specifications may contemplate a fixed escalation or deescalation in accordance with the United States Bureau of Labor Statistic's Consumer Price Index or the Producer Price Index. Bids based on specifications which are subject to a recognized escalation index shall be legal and valid for any item of a public work, at the discretion of the City.

8. Pursuant to LA R.S. 38:2212.1. F., any public procurement unit may participate in a cooperative purchasing agreement with the City of Alexandria to acquire quantities of the above listed items under a contract with the City of Alexandria for items awarded by public bid, pursuant to the cooperative purchasing provisions of Part VII of Chapter 17 of Subtitle III of Title 39 of the Louisiana Revised Statures of 1950, R.S. 39:1701 et seq.

9. The City of Alexandria reserves the right to award by item or by total bid, unless otherwise specified in the bid specifications. (Price(s) should be itemized.)

10. All erasures or corrections on the bid form must be initialed and the City of Alexandria may rely on the apparent authority represented by the initials.

11. The City of Alexandria reserves the right to reject for cause any and all bids or parts of bids, or accept bids most beneficial to the City.

# **General Conditions for Bidders - Please Read Carefully** (Continued)

12. Any bid submitted which contains additions, conditional or alternate bids, or irregularities which may make the proposal incomplete, indefinite, or ambiguous as to its meaning, thus requiring clarification after the specified date and time of bid opening shall be rejected.

13. Bids shall be opened publicly in the City Council Chambers or Council Committee Room.

14. Cash discounts may be accepted, but <u>SHALL NOT</u> be considered in making award.

15. Regarding a bid for purchase of materials, supplies or services, not to include construction of any public works, a written notice of acceptance mailed or otherwise furnished to the successful bidder shall result in a binding contract without further action by either party.

16. When any bid is accepted for the construction or doing of any public works, a written contract shall be executed by and between the City of Alexandria and the Contractor. No contract shall be binding upon the City until it has been executed by the City and delivered to the successful bidder. Should the bidder to whom the contract is awarded fail to execute the contract, the award shall then be made to the next lowest responsible bidder, or re-advertised for public bid, said decision to be in the sole judgment of the City of Alexandria. This action may result in the loss of bidding privileges for a period of one (1) year.

17. The City of Alexandria shall schedule for payment the invoices for articles or services purchased under this bid within thirty (30) days after due and proper delivery accompanied by invoice.

18. The City of Alexandria is exempt from all sales taxes. A sales tax exempt form shall be furnished by the City of Alexandria Purchasing Department, if requested.

19. Bidder(s) awarded item(s) by the City of Alexandria shall be responsible for supplying all products at the awarded price(s). Failure may result in the City's cancellation of the remaining items awarded.

20. Regarding Service Contracts and Procurement Contracts, the terms of the contract shall be binding upon any and all parties involved until goods and supplies are delivered, services have been rendered, and/or work has been completed and accepted by the Mayor on behalf of the City of Alexandria and all payments required to be made to the Contractor have been made. However, a contract may be terminated under any and all of the following conditions:

(a) By mutual agreement and consent of either party upon thirty (30) days written notice to the other party;

(b) By the Mayor, on behalf of the City of Alexandria, as a consequence of the failure of the Contractor to comply with the terms and conditions of the contract or the progress or quality of work to be performed in a satisfactory manner, proper allowance being made for circumstances beyond the control of the Contractor; or

(c) By satisfactory completion of all services and obligations described in the contract.

# **General Conditions for Bidders - Please Read Carefully** (Continued)

If the contract is terminated for any of the terms and conditions authorized in sub-paragraph (b) above, Contractor shall be formally notified in writing by the City of Alexandria Purchasing Department by means of certified mail informing him of cancellation of the contract, giving specific reasons for said cancellation. Contractor shall have the right to appeal to the City Council within ten (10) days from the date that said notification is placed in the U.S. Mail. Contractor's appeal shall be accomplished by means of a letter addressed to the City Council and delivered to the City Clerk, stating that an appeal to the decision of cancellation is desired. The City Council shall thereafter hold a hearing on the appeal, giving all parties the opportunity to present any and all evidence concerning the decision of cancellation. After hearing the appeal, the city Council may, by a majority vote, sustain, modify, or reverse the findings for said decision and shall provide, if requested by Contractor, a written determination of its findings.

21. Contractors submitting bids for Public Works construction projects in excess of \$1.00 must show his Contractor's License Number on the front of the bid envelope, except for certain projects for which a Contractor's License Number is not required by the State Contractor's Licensing Board. Failure to comply with this directive shall result in automatic bid rejection, furthermore, any Contractor who submits a bid for a type of construction for which he is not properly licensed shall be acting in violation of LA R.S. 37:2163, and shall be subject to all provisions for violation and penalties thereof. <u>Contractors who are owned by, and are submitting a bid as a subsidiary of a parent company, whose name is listed in the State of Louisiana's Roster of Licensed Contractors, may do so by including a letter of proof of ownership from the parent company with the submitted bid package. The letter must be signed as per LA R.S. 38:2212 B.(5)(a)(b)(c) (see Item #22 below).</u>

22. <u>All bids submitted via USPS (registered or certified), overnight courier or hand delivered, shall be</u> signed by hand and in ink by an authorized company representative per LA R.S. 38:2212 B.(5)(a)(b)(c), which states:

(c)(i) Evidence of agency, corporate, or partnership authority shall be required for submission of a bid to the division of administration or the State of Louisiana. The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable if any of the following conditions are met:

(aa) The signature on the bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership or partnership in commendam listed in the most current partnership records on file with the Secretary of State.

(bb) The signature on the bid is that of an authorized representative of the corporation, partnership, or other legal entity and the bid is accompanied by a corporate resolution, certification as to the corporate principle, or other documents indicating authority which are acceptable to the public entity.

(cc) The corporation, partnership, or other legal entity has filed in the appropriate records of the Secretary of State in which the public entity is located, an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

# **General Conditions for Bidders - Please Read Carefully (Continued)**

23. In-State preferences shall not apply to procurements involving federal funds.

24. Pursuant to LA R.S. 38:2212 O.(2)(a)(b), any modifications of plans and specifications will be made through an addendum. No addendum shall be issued within seventy-two (72) hours of the bid opening, excluding weekends and legal holidays, without the extension of the bid opening date. An extension of at least seven (7) but no more than thirty (30) working days is required but, re-advertising is not required. The addendum shall be transmitted by any one of the following methods: (1) facsimile transmission; (2) e-mail; (3) by hand; or (4) posted on the City of Alexandria's website (www.cityofalexandriala.com) and posted on Central Bidding's website (www.centralauctionhouse.com) if applicable.

25. All Federal Transit Administration (FTA) funded procurements, including operating assistance funding contracts, are to follow the *Master Agreement*, to include all applicable federal clauses.

a. Any bidder that is found listed on the Federal Government's *System for Award Management* (SAM) website, at <u>www.sam.gov/portal/sam</u>, under the advanced search feature for *Excluded Parties List System* (EPLS), shall automatically be rejected for the award of this bid, by Category and/or in its entirety. This applies to any portion of the bid that is a procurement funded by FTA.

26. Under the City's *AFEAT* (*Alexandria Fairness, Equality, Accessibility, and Teamwork Program*), participation by minority and/or disadvantaged business enterprise firms is encouraged. Inquiries about the *AFEAT* Program should be directed to the Division of Finance. As a part of its RFP response, each Bidder <u>shall</u> submit documentation of its bona fide effort to secure subcontractors that meet the City's AFEAT goals. Each bidder <u>shall</u> also submit proof of engagement of any subcontractor selected because of its solicitations. The Bidder's bona fide efforts and engagement(s) are a consideration in bid review and rating.

# Alexandria Fairness, Equality, Accessibility and Teamwork Program (AFEAT)

Dear Vendor:

Under the City's AFEAT (Alexandria Fairness, Equality, Accessibility, and Teamwork Program), participation by minority and/or disadvantaged business enterprise firms is encouraged. The AFEAT Program should be inquired about through the Division of Finance. The goals for qualifying disadvantaged, minority and female owned business in the use of professional service agreements with prime contractors will help effectuate the goals of increasing: the competitive viability of small business, minority, and women business enterprise by providing contract, technical, educational, and management assistance; business ownership by small business persons, minority persons, and women (including professional service opportunities); and the procurement by the City of professional services, articles, equipment, supplies, and materials from business concerns owned by small business concerns, minority persons, and women.

Prime contractors offering subcontracting should take specific action to ensure that a bona fide effort is made to achieve maximum results towards meeting the established goals. Primes shall document efforts and shall implement steps at least as extensive as the following in a good faith effort to reach or exceed the established goals:

- A. Establish and maintain a current list of minority and female owned businesses in Alexandria, in Rapides Parish, and in the State of Louisiana.
- B. Document and maintain a record of all solicitations of offers for subcontracts from minority or female construction contractor and suppliers in Alexandria, in Rapides Parish, and in the State of Louisiana.
- C. Secure listing of minority and women owned businesses from the City of Alexandria Purchasing Department, the Central Louisiana Business Incubator, and the State of Louisiana Department of Minority Affairs.
- D. Participate in associations which assist in promoting minority and women owned businesses such as the Central Louisiana Business League, the Central Louisiana Business Incubator, and the Entrepreneurial League System.
- E. Designate a responsible official to monitor all activity made in the effort to achieve or exceed the established goals; record contacts made, subcontracts entered into with dollar amounts, and other relevant information.

For more information on AFEAT and the City of Alexandria's Diversity in Action Initiative, and to explore a local and statewide directory of minority businesses, please visit <u>www.diversityinaction.org</u>. Should you have any questions or comments, please do not hesitate to contact our Finance Department at 318-449-5091 or our Purchasing Department at 318-441-6180.

As a part of its RFP response, each Bidder <u>shall</u> submit documentation of its bona fide effort to secure subcontractors that meet the City's AFEAT goals. Each bidder <u>shall</u> also submit proof of engagement of any subcontractor selected because of its solicitations. The Bidder's bona fide efforts and engagement(s) are a consideration in bid review and rating.

Sincerely,

City of Alexandria

**Bidder's Response:** 

### <u>CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:</u> <u>TURN-OUT GEAR, ANNUAL CONTRACT</u>

# **BID SPECIFICATIONS**

**<u>SCOPE</u>**: The following bid specifications are to be used as minimum and maximum standards for Turn-Out Gear, for use by The City of Alexandria Fire Department. All quoted products shall either meet or exceed the following specifications.

Unless otherwise stated, the use of manufacturer's name and product numbers are for descriptive purposes and to establish general quality levels <u>only</u>, they are not intended to be restrictive.

Prospective bidders are required to state exactly what they intend to furnish, otherwise, it is fully understood that they shall furnish all items as stated. Bidder should indicate in the space provided below, under "*Bidder's Response:*", the necessary information to indicate he/she is conforming with the bid specifications for each item as written. If Bidder is in complete compliance with each bid specification item as written, please write "Comply" in the space provided; if not, please indicate in this space, the necessary information on the product you are proposing. Each specification response is necessary to ensure the proper evaluation and tabulation of this bid. If each "*Bidder's Response*" section is not filled in or completed, your bid may be rejected.

1.0 <u>G</u>	<u>eneral:</u>
--------------	----------------

- 1.1 No bid may be withdrawn for at least thirty (30) days after the scheduled closing time for the receipt of bids. Quoted prices shall remain firm until product(s) have been accepted by the City of Alexandria as delivered.
- 1.2 Products shall be new, un-used, and of current manufacture.
- 1.3 Bid to be awarded on a total low basis, based on a quantity of one (1)each of each item bid. Bidder shall bid on all items to be considered. Bids not containing a bid price for each item shall be rejected.
- 1.4 Pursuant to LA R.S. 38:2212 A.(2), the bid specifications may contemplate a fixed escalation or de-escalation in accordance with the United States Bureau of Labor Statistic's Consumer Price Index and/or Wholesale Price Index. Bids based on specifications which are subject to a recognized escalation index shall be legal and valid.
  - 1.4.1 If any items bid has an escalation or de-escalation unit price change based on data from the manufacturer during the contract period, the low bidder shall provide a copy of such notification to the Fire Department and invoices shall be adjusted to reflect the price change.
- 1.5 Where applicable, bids for "optional" equipment shall be listed in the appropriate spaces provided on the bid specifications "Price Page". Option bids shall <u>not</u> be a basis for bid award and shall not be included in the total bid price.

**Bidder's Response:** 

#### CITY OF ALEXANDRIA BID SPECIFICATIONS FOR: TURN-OUT GEAR, ANNUAL CONTRACT

# **Bid Specifications**

1.0 <u>General</u>: (Continued)

- All products shall be delivered F.O.B., freight pre-paid to the City of Alexandria, Fire Department, Attn: Assistant Bennie Ouber, 1000 Bolton Ave., Alexandria, LA 71301, Phone 318-441-6600.
- 1.7 Each bidder is requested to furnish, attached to the bid, complete descriptive literature on product being bid. Any item(s) appearing in the manufacturer's regularly published specifications as "standard", are assumed to be included in the bidder's proposal.
- 1.8 Each respective bidder shall be responsible for insuring that his/her products meet or exceed specifications as described herein.
- 1.9 Successful bidder shall be responsible for the measuring of Fire Department personnel for turn-out gear.
- 1.10 Measurements shall be performed on an "as needed" basis at a designated fire station location.
- 1.11 Vendors wishing to submit bids for Turn-Out Gear shall be factory authorized distributors for the products being bid and shall be engaged in this type of business activity.
- 1.12 Due to the nature of the products being bid, the City requires that delivery be made within a minimum of 30 days ARO (after receipt of order).
- 1.13 In the event an item is discontinued, the Contractor shall notify the City of Alexandria - Purchasing Department and recommend s a imilar replacement item. This recommendation shall be accompanied with adequate literature to determine the item of equal value.

# 2.0 <u>Product Warranty</u>:

- 2.1 Bidder shall warrant its products to be free from defects in materials and workmanship for the products serviceable life when properly used and cared for.
- 2.2 Bidders should attach a copy of their warranty statement for each item bid with this bid submittal.

# **Bid Specifications**

3.0

3.1

3.2

3.3

4.0

4.1

4.2

4.3

4.4

5.0

5.1

5.2

5.3

Specification Standards:	<u>Bidder's Response</u> :
This specification details design and materials criteria to afford protection to the upper and lower body, excluding head, hands, feet, against adverse environmental effects during structural firefighting.	
All materials and construction shall meet or exceed NFPA Standard #1971 (2007 revision), as well as NFPA 1500 (2013 Edition) Overlap Requirements, and be ISO 9001 Certified.	
All garments (excluding boots) shall be manufactured in the United States of America.	
<b>Outer Shell Material – Jackets and Trousers</b>	
Jackets and trousers shall be "Globe®" brand, or equal.	
Outer shell shall be constructed of TENCATE "AGILITY <sup>™</sup> with ENFORCE <sup>™</sup> technology" Kevlar®/PBO/Nomex® or equal, blend material with an approximate weight of 6.6 oz. per square yard in a twill weave, or equal.	
Shell material shall be treated with SST <sup>TM</sup> (SUPER SHELLTITE), or equal, water repellent finish that also enhances abrasion resistance.	
Color of garments shall be light gold.	
<u> Thermal Insulating Liner – Jacket and Trousers</u>	
Thermal liner shall be constructed of "Caldura® Elite SL2", or equal.	
Thermal liner shall have one layer of 1.5 oz. and one layer of 2.3 oz.per square yard E-89 spunlaced Nomex®/Kevlar®, or equal, aramid blend, minimum.	
Thermal liner shall be quilt stitched to a Kelvar® filament and FR rayon/para-aramid/nylon inherently wicking Caldura® face cloth, or equal.	

5.0	<u>Thermal Insulating Liner – Jacket and Trousers</u> : (Continued)	<u>Bidder's Response</u> :
5.4	Thermal liner shall have a minimum of one pocket, approximately 8"X 10 1/2", constructed of thermal liner over-edged and lined with moisture barrier material, minimum. Pocket shall be affixed to the inside of the jacket thermal liner on the left side by means of a single needle stitch, or equal.	
5.5	Thermal liner shall be bound around its perimeter with Bias-Cut Neoprene coated cotton/polyester binding, or equal.	
5.6	Thermal liner shall be attached to the moisture barrier.	
6.0	<u> Moisture Barrier – Jackets and Trousers</u>	
6.1	The moisture barrier shall be W.L. Gore CROSSTECH®, or equal.	
6.2	The bicomponent membrane shall be comprised of an expanded PTFE (polytetrafluoroethylene, or example Teflon) matrix having a continuous hydrophilic (i.e. water loving) and oleophobic (i.e. oil hating) coating that is impregnant into the matrix, or equal.	
6.3	The moisture barrier "CROSSTECH Type 2F", or equal, shall be comprised of a CROSSTECH®, or equal membrane laminated to a Nomex® IIIA woven pajama check substrate, or equal.	
6.4	The moisture barrier seams shall be sealed with GORE-SEAM® tape, or equal.	
7.0	Sealed Moisture Barrier Seams:	
7.1	Moisture barrier seams shall be sealed with a 1" wide sealing tape, minimum.	
7.2	One side of the tape shall be coated with a heat activated glue adhesive, or equal.	
7.3	The adhesive shall be activated by heat and the sealing tape shall be applied to the moisture barrier seams by means of pressure exerted by rollers for that purpose, or equivalent system.	

# **Bid Specifications**

Bidder's Response:

# 8.0 <u>Method of Thermal Liner/Moisture Barrier Attachment for Jackets & Trousers</u>

JACKET SHELL:

- 8.1 The thermal liner and moisture barrier shall be completely removable from the jacket shell.
- 8.2 A minimum of six snap fasteners shall secure the thermal liner/moisture barrier to the outer shell along the length of the neck line under the collar, or equivalent system.
- 8.3 The remainder of the thermal liner/moisture barrier shall be secured with snap fasteners appropriately spaced on each jacket facing and snap fasteners at each sleeve end, or equal.

TROUSER SHELL:

- 8.4 The thermal liner and moisture barrier shall be completely removable from the trouser shell.
- 8.5 Snap fasteners shall be spaced along the waistband to secure the thermal liner/moisture barrier to the shell, or equivalent system. Specify:
- 8.6 The legs of the thermal liner/moisture barrier shall be secured to the shell by means of snap fasteners, or equivalent system. Specify:

# 9.0 <u>Thermal Protective Performance</u>:

9.1 The assembled garment, consisting of an outer shell, moisture barrier, and thermal liner, shall exhibit a TPP (Thermal Protective Performance)rating of 35, minimum.

# 10.0 <u>Stitching</u>:

- 10.1 The outer shell shall be assembled using stitch type #301, #401, #514 and #516.
- 10.2 The thermal liners and moisture barriers shall be assembled using stitch type #301, #401, #504, #514, and #516.

# **Bid Specifications**

**Bidder's Response:** 

# **10.0** Stitching: (Continued)

- 10.3 Stitching in all seams shall be continuous.
- 10.4 There shall be no joined stitching in mid-seam.
- 10.5 All major A outer shell structural seams, major B structural liner seams, shall have a minimum of 8 to 10 stitches per inch.

# 11.0 Jacket Construction:

- 11.1 Body: The body of the shell and liner system shall be constructed of three separate panels consisting of two (2) front panels and one (1)back panel, or equivalent system.
  - 11.1.1 The body panels shall be shaped so as to provide a tailored fit thereby enhancing body movement and shall be joined together by double stitching with Nomex® thread, or equal.
- 11.2 Drag Rescue Device (DRD): A Firefighter Drag Rescue Device shall be installed in each jacket. The ends of a minimum, 1" wide, Kevlar®, or equal, strap shall be sewn together to form a continuous loop. The strap shall be installed in the jacket between the liner system and outer shell such that when properly installed will loop around each arm. The strap shall be accessed through a portal between the shoulders on the upper back where it shall be secured in place by a FR strap. The access port shall be covered by an outside flap of shell material designed to fit between the shoulder straps of a SCBA. The flap shall have a compliant reflective patch sewn to the outside to clearly identify the feature as the DRD (Drag Rescue Device).

# **11.3 SEPARATING LINER SYSTEM:**

11.3.1 The combined moisture barrier and the thermal liner shall be completely removable from the jacket.

<b>Bid Specifications</b>	(Continued)
---------------------------	-------------

	<u>Dia Specifications (Continueu)</u>	Bidder's Response:
12.0	<u>Sleeves:</u>	
12.1	Sleeves shall be of two (2) piece construction, having an upper and a lower sleeve, or equivalent system.	
12.2	Sleeve seams shall be of a double needled seam construction, minimum, and shall be contoured to follow the natural flex of the arm at rest.	
12.3	Both the under and upper sleeve shall be graded in proportion to the chest size.	
12.4	For unrestricted movement, on the underside of each sleeve there shall be two (2) outward facing pleats located on the front and back portion of the sleeve on the shell, and thermal liner, or equivalent system.	
12.5	On the moisture barrier and thermal liner, the system will consist of two darts, rather than pleats, to allow added length in the undersleeve, or equivalent system.	
12.6	The moisture barrier darts shall be seam sealed to assure liquid resistance integrity, or equivalent system.	
12.7	The pleats shall expand in response to upper arm movement, and shall fold in on themselves when the arms are at rest. This expansion shall allow for greater multi-directional mobility and flexibility in the shoulder and arm areas, with little restriction or coat rise, or equivalent system.	
13.0	Liner Elbow Thermal Enhancement:	
13.1	An additional layer of thermal liner material shall be sewn to the elbow area of the liner system for added protection at contact points and increased thermal insulation.	
13.2	The elbow thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only.	
14.0	Sleeve Cuff Reinforcement:	
14.1	The sleeve cuffs shall be reinforced with black suede leather, or equivalent system.	

# **Bid Specifications (Continued)**

# 12.0 <u>Sleeves Cuff Reinforcement:</u> (Continued)

- 14.2 The cuff reinforcements shall not be less than 2 inches in width and folded in half, approximately one half inside and one half outside the sleeve end for greater strength and abrasion resistance, or equivalent system.
- 14.3 The cuff reinforcement shall be double stitched to the sleeve end, or equivalent system.

# 15.0 Wristlets/Elasticized Adjustable Sleeve Walls:

- 15.1 Each jacket shall be equipped with Nomex®, or equal, hand and wrist guards (over the hand) not less than 7 inches in length and of double thickness, minimum.
- 15.2 A separate thumbhole with an approximate diameter of 2 inches shall be recessed approximately 1 inch from the leading edge, minimum.
- 15.3 The wristlet shall be sewn to the end of the liner sleeves, or equivalent system.
- 15.4 Flame Resistant Neoprene, or equal, coated cotton/polyester moisture barrier shall line the inside of the sleeve shell from the cuff to a point approximately 5 inches back, where it is double stitched to the shell and then extending toward the cuff forming the sleeve well, or equivalent system.
- 15.5 The neoprene, or equal, sleeve well shall form a cuff end that shall be elasticized providing a snug fit at the wrist and covering the knit wristlet on the liner sleeve, or equivalent system.
- 15.6 This sleeve well configuration shall serve to prevent water and other hazardous elements from entering the sleeves when the arms are raised.
- 15.7 A minimum of four (4) NOMEX®, or equal, snap tabs shall be sewn into the juncture of the sleeve well and wristlet. The tabs shall be spaced equidistant from each other and shall be fitted with female snap fasteners to accommodate corresponding male snaps in the liner sleeves, or equivalent system. This configuration shall insure there is no interruption in protection between the sleeve liner and wristlet.

<u>Bidder's Response:</u>

# 16.0 Collar and Free Hanging Throat Tab:

- 16.1 The collar shall consist of four-layer construction and be of a two-piece design, or equivalent system.
- 16.2 The outer layers shall consist of outer shell material, with two-layers of specified moisture barrier sandwiched between (see Moisture Barrier section).
- 16.3 The forward inside ply of moisture barrier shall be sewn to the inside of the collar at the edges only, or equivalent system.
- 16.4 The multi-layered configuration shall provide protection from water and other hazardous elements.
- 16.5 The collar shall be a minimum of 3" high and graded to size.
- 16.6 The leading edges of the collar shall extend up evenly from the leading edges of the jacket front body panels so that no gap occurs at the throat area, or equivalent system.
- 16.8 The collar's back layers of the outer shell and moisture barrier shall be joined to the body panels with two rows of stitching, minimum.
- 16.9 The collar's front layers of moisture barrier and outer shell shall have a minimum of 6 strap fasteners spaced equidistant to minimize gaps on lower edge of collar.
- 16.10 The throat tab shall be a scoop type design and constructed of two plies of outer shell material with two center plies of moisture barrier material, minimum.
- 16.11 Throat tab shall measure a minimum of 3" wide at the center tapering to 2" at each end with a total length of approximately 9".
- 16.12 The throat tab shall be attached to the right side of the collar by a piece of NOMEX®, or equal, twill webbing measuring 1" wide by 1.5" long minimum.
- 16.13 The throat tab shall be secured in the closed and stowed position with flame resistant hook and pile fastener tape.
- 16.14 The flame resistant hook and pile fastener tape shall be oriented to prevent exposure to the environment when the throat tab is in the closed position.

### **Bid Specifications**

# 16.0 <u>Collar and Free Hanging Throat Tab</u>: (Continued)

- 16.15 A minimum of two (2) pieces of flame resistant pile fastener tape measuring approximately 1 1/2" X 3" shall be sewn vertically to the inside of each end of the throat tab.
- 16.16 Corresponding pieces of flame resistant hook fastener tape measuring 1" X 3" shall be sewn horizontally to the leading outside edge of the collar on each side, for attachment and adjustment when in the closed position and wearing a breathing apparatus mask, or equivalent system.
- 16.17 In order to provide a means of storage for the throat tab when not in use, a piece of flame resistant hook fastener tape measuring approximately 1" X 3" shall be sewn horizontally to the inside of the throat tab immediately under the 1 1/2" X 3" pieces of flame resistant pile fastener tape, or equivalent system.
- 16.18 The collar closure strap shall fold in half for storage with the flame resistant pile fastener tape engaging the flame resistant hook fastener tape,or equivalent system.
- 16.19 A hanger loop constructed of a double layer of outer shell material shall be sewn to the top inside of the collar at the center.

# 17.0 Line Shoulder and Upper Back Thermal Enhancement:

- 17.1 An additional layer of thermal liner material shall be used to increase thermal insulation in the upper back, front and shoulder area of the liner system.
- 17.2 This thermal enhancement layer shall drape over the top of each shoulder extending from the collar to the sleeve/shoulder seam, down the front approximately 5" and from the juncture of the collar down the back to a minimum depth of 5 3/4", or equivalent system.
- 17.3 The upper back, front and shoulder thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only.

<u>Bidder's Response</u>:

	<b><u>Bid Specifications</u></b> (Continued)	D 11 / D
18.0	Back:	<u>Bidder's Response</u> :
18.1	Jackets shall include inverted pleats to afford enhanced mobility and freedom of movement in addition to that provided by the sleeves, or equivalent system.	
18.2	The outer shell shall have two (2) inverted pleats (one on each side)installed on either side of the back body panel, or equivalent system.	
18.3	The inverted pleats shall begin at the top of each shoulder and extend vertically down the sides of the jacket to the hem.	
18.4	Maximum expansion of the pleats shall occur at the shoulder area and taper toward the hem.	
18.5	The thermal liner shall have a single inverted pleat located at the upper middle of the back, corresponding to the added length in the shell provided by the back pleats. It shall be designed to expand with the outer shell pleats to provide maximum expansion.	
18.6	The moisture barrier shall be designed with darts corresponding to the added length in the shell provided by the back pleats. The darts shall be positioned at the shoulder blades of the moisture barrier, outside of the SCBA straps, and work together with the outer shell and the thermal liners pleats in the black providing maximum expansion.	
19.0	Jacket Front:	
19.1	The jacket shall incorporate separate facings to ensure there is no interruption in thermal or moisture protection in the front closure area.	
19.2	The facings shall measure a minimum of 2-1/2" wide, extend from the collar to the hem, and shall be double-stitched to the underside of the outer shell at the leading edges of the front body panels.	
19.3	A breathable moisture barrier material shall be sewn to the jacket facings and configured such that it is sandwiched between the jacket facing and the inside of the respective body panel.	
19.4	The breathable film side shall face inward to protect it.	

# **Bid Specifications**

# **19.0** <u>Jacket Front</u>: (Continued)

19.5 The thermal liner and moisture barrier assembly shall be attached to the jacket facings by means of snap fasteners, or equivalent system.

# 20.0 Storm Flap:

- 20.1 A rectangular storm flap measuring approximately 3" wide and minimum 23" long (based on a 32" length jacket shall be centered over the left and right body panels to ensure there is no interruption in thermal or moisture protection in the front of the jacket, or equivalent system.
- 20.2 The outside storm flap shall be constructed of two plies of outer shell material with a center ply of breathable moisture barrier material, or equivalent system.
- 20.3 The outside storm flap shall be double stitched to the right side body panel and shall be reinforced at the top and bottom with bartacks, or equivalent system.

# 21.0 Storm Flap and Jacket Front Closure System:

- 21.1 The jacket shall be closed by means of a 22", size #10, heavy duty, high-temp smooth gliding zipper on the jacket fronts and flame resistant hook and loop fastener tape on the storm flap, or equivalent system.
- 21.2 The teeth of the zipper shall be mounted on Nomex®, or equal, cloth and shall be sewn into the respective jacket facings.

21.2.1 There shall be a ZIPPERGRIPPER<sup>TM</sup>, or equal, feature integrated into the zipper closure of the jacket. This shall facilitate donning and shall provide additional room at the base of the jacket when sitting otherwise engaged.

21.2.2 This zipper will be comprised of black Ara-Shield®, or equal, with the zipper install on one side of the Ara-Shield®, or equal, and with the opposite side double stitched to the left coat front, or equivalent system.

Bidder's Response:

### **Bid Specifications**

# 21.0 <u>Storm Flap and Jacket Front Closure System</u>: (Continued)

- 21.3 The storm flap shall close over the left and right jacket body panels and shall be secured with flame resistant hook and pile fastener tape, or equivalent system.
- 21.4 A 1 <sup>1</sup>/<sub>2</sub>", minimum, piece of flame resistant loop fastener tape measuring shall be installed along the leading edge of the storm flap on the underside with four rows of stitching, or equivalent system. A corresponding piece of flame resistant hook fastener tape measuring approximately 1-1/2" shall be sewn with a minimum of four rows of stitching to the front body panel and positioned to engage the loop fastener tape when the storm flap is closed over the front of the jacket, or equivalent system.

# 22.0 Cargo/Handwarmer Expansion (Bellows) Pockets:

- 22.1 Each jacket front body panel shall have an expansion pocket measuring approximately 2" deep by 8" wide by 8" high double stitched to it and shall be located such that the bottom of the pockets are at the bottom of the jacket for full functionality when used with an SCBA.
- 22.2 Retro-reflective trim shall run over the bottom of the pockets so as not to interrupt the trim stripe.
- 22.3 A minimum of two (2) rust resistant metal drain eyelets shall be installed in the bottom of each expansion pocket to facilitate drainage of water, or equivalent system.
- 22.4 The lower half of the pocket shall be reinforced with an extra layer of outer shell material on the inside.
- 22.5 The pocket flaps shall be rectangular in shape, and shall be constructed of two (2) layers of outer shell material and shall measure 3" deeper than the pocket expansion and <sup>1</sup>/<sub>2</sub>" wider than the pocket, minimum.
- 22.6 The upper pocket corners and pocket flaps shall be reinforced with bartacks, or equivalent system.
- 22.7 The pocket flaps shall be closed by means of flame resistant hook and pile fastener tape, or equivalent system.

Bidder's Response:

# **Bid Specifications**

# **Bidder's Response:** 22.0 **Cargo/Handwarmer Expansion (Bellows) Pockets: Continued** 22.8 A minimum of two (2) pieces of flame resistant hook fastener tape measuring approximately 1-1/2" by 3" shall be installed vertically on the inside of each pocket flap (one piece on each end), or equivalent system. 22.9 A minimum of two (2) corresponding pieces of flame resistant pile fastener tape measuring approximately 1-1/2" X 3" shall be installed horizontally on the outside of each pocket near the top (one piece on each end) and positioned to engage the hook fastener tape, or equivalent system. 22.10 A separate hand warmer pocket compartment shall be provided under the expandable cargo pocket. This compartment shall be accessed from the rear of the pocket and shall be lined with NOMEX®, or equal, fleece for warmth and comfort, or equivalent system. 23.0 **Radio Pocket:** 23.1 Each jacket shall have a pocket designed for the storage of a portable radio. 23.2 The radio pocket shall measure approximately 3" deep by 3.5" wide by 9"high and shall be installed on the left chest. 23.3 Pocket shall be of box type construction, double stitched to the coat, and shall have one drainage eyelet in the bottom of the pocket, minimum. 23.4 The pocket flap shall be constructed of a minimum of two (2) layers of outer shell material measuring approximately 3" longer than the depth of the pocket and <sup>1</sup>/<sub>4</sub>" wider than the pocket. 23.5 The pocket flap shall be closed by means of flame resistant hook and loop fastener tape, or equivalent system. 23.6 A piece of flame resistant hook fastener tape measuring approximately 1-1/2" X 3" shall be installed on the inside of the pocket flap beginning at the center of the bottom of the flap, or equivalent system. 23.7 A piece of flame resistant loop fastener tape measuring approximately 1-1/2" X 3" shall be installed horizontally on the outside of the pocket near the top center and positioned to engage the hook fastener tape, or equivalent system.

# **Bid Specifications**

**Bidder's Response:** 23.0 **Radio Pocket: (Continued)** 23.8 The entire inside of the pocket shall be lined with neoprene coated cotton/polyester moisture barrier material to ensure that the radio is protected from the elements, or equivalent system. 23.9 The moisture barrier material shall also be sandwiched between the two (2) layers of outer shell material in the pocket flap for added protection. 24.0 **Microphone Strap:** 24.1 A strap shall be constructed to hold a microphone for a portable radio. 24.2 The microphone strap shall be sewn to the coat at the ends only. 24.3 The microphone strap shall be mounted above the radio pocket and shall be constructed of double layer outer shell material. 25.0 **Flashlight Holder:** Jacket shall be equipped with a Survivor brand, or equal, flashlight 25.1 holder sewn on the right chest. 25.2 An inward facing safety hook attached to a double layer of material strap, shall be double stitched to accommodate the clip portion of the flashlight, or equivalent. 25.3 Below the safety hook shall be a strap constructed of outer shell material, and shall measure approximately 1 3/4" high X 9" wide, and shall hold the barrel of the flashlight. The lower strap shall be equipped with a 1-1/2" X 2" 25.4 flame resistant hook and loop, or equal, closure at the front of the strap to facilitate easy removal of the flashlight. 25.5 There shall be approximately  $3 \frac{1}{2}$  between the upper snap hook and the lower strap. 26.1The retro-reflective fluorescent trim shall be lime/yellow Scotchlite® Triple Trim, or equal, (L/Y borders with silver center).

# **Rid Specifications**

	<u>Dia Specifications</u>	<u>Bidder's Response</u> :	
26.0	Retro-Reflective Fluorescent Trim:		
26.2	Each jacket shall have an adequate amount of retro-reflective fluorescent trim affixed to the outside of the outer shell to meet the requirements of NFPA #1971 (2007) edition).		
26.3	The trim shall be in the following widths and shall be NYC style; 3" wide stripes around the lower portion of the body of the jacket, around the back and chest area approximately three inches below the armpit, around each sleeve below the elbow, around each sleeve above the elbow.		
27.0	Lettering Patch:		
27.1	There shall be a lettering patch receiver on the bottom rear of each coat.		
27.2	The lettering patch shall attach with snap fasteners and fire resistant hoop and loop fastener tape.		
27.3	Letters shall be 3" high, minimum.		
27.4	Letters shall be lime yellow and reflective.		
27.5	Letters shall indicate firefighter's name.		
27.6	Letters shall be sewn onto patch.		
28.0	Reinforced Trim Stitching:		
28.1	The trim stitching shall be reinforced with a strip of flame resistant cording material measuring approximately 3/32" wide, or equivalent system.		
28.2	The cording shall be sewn to the top surface of the trim at the edges during the installation of the retro-reflective fluorescent trim on the garment, or equivalent system.		
28.3	The cording shall provide a bed for the stitching and affords extra protection to the stitching from abrasion. This action shall help to significantly reduce trim separation from the garment due to stitching failure from abrasion.		
29.0	Sizing:		
29.1	The jacket length shall be measured from the juncture of the collar and back panels to the hem of the jacket and shall measure approximately 32" long.		
29.2	The jacket shall be available in male and female patterns in even size chest.		

# **Bid Specifications**

# 29.0 <u>Sizing</u>: (Continued)

29.3 Generalized sizing, such as small, medium, large, etc., will not be accepted.

# 30.0 **<u>Body</u>**:

- 30.1 The body panels shall be shaped so as to provide a tailored fit, thereby enhancing body movement, and shall be joined together by double stitching with Nomex®, or equal, thread, or equivalent system.
- 30.2 The body panels and seam lengths shall be graded to size to assure accurate fit in a broad range of sizes.
- 30.3 The front body panels shall be wider than the rear body panels to provide more fullness over the knee area. This shall be accomplished by rolling the side leg seams (inside and outside) to the rear of the pant leg beginning at the knee. The slight taper shall prevent premature wear of the side seams by pushing them back and away from the primary high abrasion areas encountered on the sides of the lower legs; or equivalent system.

# 31.0 Separating Liner System (Trousers):

31.1 The thermal liner and moisture barrier layers of the pant liner shall be constructed in such a way to allow an access opening for interior inspection, service and replacement. The thermal liner and moisture barrier layers shall be stitched together for security and prevention of inadvertent use of one layer without the other.

31.1.1 The liner system shall have a reinforcement material sewn to the bottom of the fly opening, or equivalent system.

31.2 The liner system of the pant shall incorporate an opening along the back of the waistline for ease in inspecting the inner layers to facilitate performing the complete Liner inspection, or equivalent system.

31.2.1 The thermal liner and moisture barrier shall be individually bound with a neoprene coated bias cut tape and joined together on each of the front panels, along the waistband from the front fly opening to the side seam. <u>Bidder's Response:</u>

# **<u>Bid Specifications</u>** (Continued)

# 31.0 <u>Separating Liner System (Trousers)</u>:(Continued)

31.2.2 The back of the liner system will be allowed to remain open with two snaps on either side of the back seam to attach the moisture barrier layer to the thermal layer, or equivalent system.

## 32.0 Elasticized Waistband:

32.1 The trouser design shall facilitate the transfer of the weight of the trouser to the hips instead of the shoulders and suspenders.

# 32.0 <u>Elasticized Waistband</u>: (Continued)

- 32.2 The two (2) rear outer-shell body panels, beginning at the trouser side seams, shall incorporate an elasticized waist insert running from the side seam toward the back of the trouser for approximate a distance of 4".
- 32.3 The rear elasticized waistband shall be integral to the shell of the pant and the elasticized portion shall be covered in an aramid fabric.
- 32.4 The waist area of the trousers shall incorporate an independent stretch waistband on the inside with a separate piece of black aramid outer shell material cut on the bias (diagonally) measure not less than 1 1/2" in width.
- 32.5 The top edge of the waistband reinforcement shall be double stitched to the outer shell at the top of the trousers.
- 32.6 The lower edge of the waistband shall be serged and unattached to the shell to accept the thermal liner and moisture barrier.
- 32.7 The top of the thermal liner and moisture barrier shall be secured to the underside of the waistband reinforcement by means of nine snaps spaced equidistant along the length of the waistband reinforcement, or equivalent system.

# 33.0 External/Internal Fly Flap:

33.1 The trousers shall have a vertical outside fly flap constructed of two (2) layers of outer shell material, with a layer of moisture barrier material sandwiched between, minimum.

Bidder's Response:

# **<u>Bid Specifications</u>** (Continued)

# 33.0 <u>External/Internal Fly Flap:</u>

- 33.2 The fly flap shall be double stitched to the left front body panel and shall measure approximately 2-3/4" wide with a length graded to size based on waist measurement and reinforcement with bar tacks at the base, or equivalent system.
- 33.3 An internal fly flap constructed of one (1) layer of outer shell material, thermal liner and specified moisture barrier, measuring approximately 2" wide with a length graded to size based on waist shall be sewn to the leading edge of the right front body panel.
- 33.4 The underside of the outside fly flap shall have a 1 1/2" wide piece of loop fastener tape quadruple stitched along the full length and through the shell material only. Stitching shall not penetrate the moisture barrier insert between the two layers to insure greater thermal protection and reduced water penetration. A corresponding strip of 1 1/2" wide piece of FR hook fastener tape shall be quadruple stitched to the outside right front body panel securing the fly in a closed position, or equivalent system.

# 34.0 <u>Belt:</u>

- 34.1 Each trouser shall include a 2" wide black Kevlar® belt with an adjustable hi-temp thermoplastic buckle serving as the exterior primary positive locking closure, or equal.
- 34.2 Sizing adjustments shall be provided by means of the black belting which can be threaded through the male portion of the 2" thermoplastic buckle, or equivalent system.
- 34.3 The belt shall be attached to the two (2) front body panels of the trouser beginning at the side seams, or equivalent system.
- 34.4 The belt shall run through tunnels constructed of black 6.0 osy aramid outer shell material, protecting it from damage, or equivalent system.
- 34.5 The tunnels shall begin at the side seams and terminate at the front of the trouser exposing the buckle, or equivalent system.
- 34.6 A single belt loop constructed of a double layer of black 6.0 osy. aramid measuring approximately <sup>1</sup>/<sub>2</sub>" X 3" shall be attached to the topside of the right side tunnel, or equivalent system.
- 34.7 The belt loop shall be located approximately 2" from the tunnel opening for storage of the belt tab.

**Bidder's Response:** 

# **Bid Specifications**

25.0	Dedded Din Cond Sugmendang and Attachments	<u>Bidder's Response</u> :
35.0	Padded Rip-Cord Suspenders and Attachment:	
35.1	Inside the waistband there shall be attachments for the standard "H" style "Padded Rip-Cord" suspenders, or equivalent system.	
35.2	There shall be a minimum of four (4) attachments.	
	<ul><li>35.2.1 Two (2) attachments on the front</li><li>35.2.2 Two (2) attachments on the back</li></ul>	
35.3	The suspender attachments shall be constructed of a double layer of black Ara-Shield, or equal, material measuring approximately <sup>1</sup> / <sub>2</sub> " wide by 3" long.	
35.4	The attachments shall be sewn in a horizontal position on the ends only to form a loop, or equivalent system. The appearance shall be much like a horizontal belt loop to capture the suspender ends; or equivalent system.	
35.5	A pair of "H" style "Padded Rip-Cord" suspenders shall be specially configured for use with the trousers, or equivalent system.	
35.6	The main body of the suspenders shall be constructed of 2" wide black strap webbing, or equivalent system.	
	The suspenders shall run over each shoulder to a point approximately shoulder blade high on the back, where they shall be joined by a 2" wide horizontal piece of webbing measuring approximately 8" long, forming the "H", or equivalent system.	
35.7	This shall prevent the suspenders from slipping off the shoulders.	
35.8	The shoulder area of the suspenders shall be padded for comfort.	
35.9	The rear ends of the suspenders shall be sewn to 2" wide elasticized webbing extensions measuring approximately 8" in length and terminating with thermoplastic loops, or equivalent system.	
35.10	The forward ends of the suspender straps shall be equipped with specially configured non-slip metal slides, or equivalent system. Through the metal slides shall be the 9" lengths of strap webbing "Rip-Cords" terminating with thermoplastic loops on each end, or equivalent system. Pulling on the "Rip-Cords" shall allow for quick adjustment of the suspenders.	

## **Bid Specifications**

# 35.0 Padded Rip-Cord Suspenders and Attachment: (Continued)

35.11 Threaded through and attached to the thermoplastic loops on the forward and rear ends of the suspenders shall be Nomex®, or equal, suspender attachments incorporating two (2) snap fasteners, or equivalent system. The Nomex®, or equal, suspender attachments shall be threaded through the suspender attachments loops on the inside waistband of the trousers. The aramid suspender attachments will then fold over and attach themselves securing the suspender to the trouser, or equivalent system.

# 36.0 <u>Seat:</u>

- 36.1 The rise of the rear trouser center back seam, from the top back of the waistband to where it intersects the inside leg seams at the crotch, shall exceed the rise at the front of the trouser by 8".
- 36.2 The longer rear center back seam shall provide added fullness to the seat area for extreme mobility without restriction when stepping up or crouching and will be graded to size.
- 36.3 This feature in combination with other design elements shall maintain alignment of the knee directly over the knee pads when kneeling and crawling.

# 37.0 Expansion (Bellows) Pockets:

- 37.1 An expansion pocket, measuring approximately 2" deep by 10" wide by 10" high shall be double stitched to the side of each leg straddling the outseam above the knee and positioned to provide accessibility.
- 37.2 The lower half of each expansion pocket shall be reinforced with an additional layer of outer shell material on the inside.
- 37.3 A minimum of two (2) rust resistant metal drain eyelets shall be installed on the underside of each expansion pocket to facilitate drainage of water.
- 37.4 The pocket flaps shall be rectangular in shape, constructed of two (2) layers of outer shell material and shall measure 3" deeper than the pocket expansion and <sup>1</sup>/<sub>2</sub>" wider than the pocket.

Bidder's Response:

# **Bid Specifications**

37.0	<b>Expansion</b>	(Bellows)	Pockets:	(Continued)
------	------------------	-----------	----------	-------------

- 37.5 The upper pocket corners and pocket flaps shall be reinforced with bar tacks; or equivalent.
- 37.6 The pocket flaps shall be closed by means of flame resistant hook and loop fastener tape; or equivalent system.
- 37.7 A minimum of two (2) pieces of flame resistant hook fastener tape measuring approximately 1-1/2" by 3", shall be installed vertically on the inside of each pocket flap (one piece on each end); or equivalent.
- 37.8 A minimum of two (2) corresponding pieces of flame resistant pile fastener tape measuring approximately 1-1/2" X 3", shall be installed horizontally on the outside of each pocket near the top (one piece on each end) and positioned to engage the hook fastener tape; or equivalent.

# 38.0 Knee:

- 38.1 The outer shell of the trouser legs shall be constructed with horizontal expansion pleats in the knee area with corresponding darts in the liner to provide added fullness for increased freedom of movement and maximum flexibility, or equivalent system.
- 38.2 The pleats shall be folded to open outwardly towards the side seams to insure no restriction of movement, or equivalent system.
- 38.3 The knee shall be installed proportionate to the trouser inseam, in such a manner that it falls in an anatomically correct knee location.
- 38.4 The liner system shall be constructed with four (4) darts per leg in the front of the knee. Two (2) will be located above the knee (one on each side). Each dart shall be approximately 2" long. The darts in the liner provide a natural bend at the knee. The darts in the liner shall work in conjunction with the expansion panels in the outer shell to increase freedom of movement when kneeling, crawling, climbing stairs or ladders, or equivalent system.

<u>Bidder's Response:</u>

# **Bid Specifications**

# **39.0 Liner Knee Thermal Enhancement:**

- 39.1 An additional layer of specified thermal liner and moisture barrier material shall be sewn to the knee area of the liner system for added protection and increased thermal insulation at contact points.
- 39.2 The knee thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only.

## 40.0 Knee Reinforcements:

- 40.1 The knee area shall be reinforced with black suede leather, or equivalent.
- 40.2 The knee reinforcement shall be removable without opening up any seams of the outer shell of the pants.
- 40.3 The knee reinforcements shall measure approximately 9" wide X 12" high and shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance; or equivalent.

## 41.0 Padding Under Knee Reinforcements:

41.1 Padding for the knees shall be accomplished with one (1) layer of Silizone® foam, sandwiched between the thermal liner and moisture barrier; or equal.

# 42.0 Trouser Cuff Reinforcement:

- 42.1 The cuff shall be double stitched to the outer shell.; or equal.
- 42.2 Two (2) Nomex<sup>®</sup>, or equal, snap tabs (one on each side), measuring approximately 1" long shall be bar tacked to the inside of each leg of the outer shell approximately 3" from the bottom of the trouser leg; or equivalent.

Bidder's Response:

**Bid Specifications** 

43.0

43.1

43.2

43.3

**44.0** 

44.1

45.0

45.1

45.2

45.3

46.0

46.1

46.2

46.3

46.4

Reverse Boot Cut:	<u>Bidder's Response</u> :
The outer shell trouser leg cuffs shall be constructed such that the back of the leg is approximately 1" shorter than the front.	
The liner shall also have a reverse boot cut at the rear of the cuff and a concave cut at the front to keep the liner from hanging below the shell, or equivalent system.	
This construction feature shall minimize the chance of premature wear of the cuffs and injuries due to falls as a result of "walking" on the trouser cuffs.	
<b><u>Retro-reflective Fluorescent Trim:</u></b>	
The trousers shall have a stripe of retro-reflective fluorescent trim encircling each leg below the knee to comply with the requirements of NFPA #1971 (2007 revision) in 3" lime/yellow Trip Trim (L/Y borders with silver center).	
Reinforced Trim Stitching:	
The trim stitching shall be reinforced with a strip of 3/32" wide flame resistant cording material, minimum.	
The cording shall be sewn to the top surface of the trim at the edges during installation of the retro-reflective fluorescent trim on the garment.	
The cording shall provide a bed for the stitching and shall afford extra protection to the stitching from abrasion.	
<u>Sizing:</u>	
The trousers shall be available in even size waist measurements of 2" increments.	
The trouser inseam measurement shall be available in 2" increments.	
Generalized sizing, such as small, medium, large, etc., will not be considered acceptable.	
Sizing specifically for women shall also be available.	

	<b>Bid Specifications</b>	Bidder's Response:	
47.0	Third Party Testing and Listing Program:		
47.1	All components used in the construction of these garments shall be tested for compliance to NFPA Standard #1971 (2013revision) by Underwriters Laboratories (UL).		
47.2	Underwriters Laboratories shall certify and list compliance to that standard.		
47.3	Such certification shall be denoted by the Underwriters Laboratories certification label.		
48.0	Labels:		
48.1	Appropriate warning label(s) shall be permanently affixed to each garment.		
48.2	Additionally, the label(s) shall include the following information:		
	<ul> <li>48.2.1 Compliance to NFPA Standard #1971 – 2013 edition</li> <li>48.2.2 Underwriters Laboratories classified mark;</li> <li>48.2.3 Manufacturer's Name;</li> <li>48.2.4 Manufacturer's address;</li> <li>48.2.5 Manufacturer's garment identification number;</li> <li>48.2.6 Date of manufacture;</li> <li>48.2.7 Size;</li> <li>48.2.8 Fiber contents;</li> </ul>		
49.0	ISO Certification/Registration:		
49.1	The protective clothing manufacturer shall be certified and registered to ISO Standard 9001 to assure a satisfactory level of quality.		
50.0	<u>Specifications for PGI King Cobra Ultimate Nomez/Lenzing®</u> <u>Blend Firefighter Hoods MFG: KC-3038185;</u> <u>Particulate; or equal.</u>		
50.1	Hoods shall be UL-Classified;		
50.2	Hoods shall meet NFPA 1971 current edition;		
50.3	Hoods shall meet Cal-OSHA standards;		

Bid Specifications						
50.0	<u>Specifications for PGI King Cobra Ultimate Nomez/Lenzing®</u> <u>Blend Firefighter Hoods MFG: KC-3038185;</u> <u>Particulate; or equal.</u> (Continued)	<u>Bidder's Response</u> :				
50.4	Hoods shall be Gore Particulate Normex Blend; or equal.					
50.5	Material should be 20% Nomex; 80% Lenzing FR; or equal.					
50.6	Particulate blocking layering system throughout entire hood, or equal.					
50.7	Hoods shall have heavy duty elastic around the face opening, which will stretch for easy donning of face piece, and be snug around the face and face piece; or equal.					
50.8	Hoods shall insulate against head and cold;					
50.9	Hoods shall maintain properties after washing and drying and be machine washable;					
50.9	Hoods shall be the long neck style;					
51.0	Specifications for Fire Fighting Helmets:					
51.1	Helmets shall be Cairns 1044 Traditional, or equal;					
51.2	Helmets shall meet NFPA 1971 2017 latest edition;					
51.3	Helmet shell shall be of American Fire Service Style. The shell shall have a down-sloping brim to enhance water shed. The radius of the juncture of the brim and crown shall be no less than 0.1875" to maximize deflection of debris and impact protection; or equal.					
51.4	The helmet shell material shall be fiberglass, or equal, composite, consisting of a high-temperature-flame, and chip-resistant "through-colored" thermostat resin, reinforced with 1" and 2" chopped fiberglass, which is compression-molded to form a one-piece shell, or equal.					
51.5	Shell dimensions (with edge trim) should be:					
	<ul><li>51.5.1 15.5" in length;</li><li>51.5.2 11.88 in width;</li><li>51.5.3 and have a crown dept of 6.5".</li></ul>					

### **Bid Specifications**

<u>51.0</u>	<b>Specifications</b>	for Fire	Fighting	Helmets:	(Continued)

- 51.6 The shell should have a nominal wall thickness of 0.065" in the crown and 0.080" in the brim.
- 51.7 The shell color should be white, red, black and yellow with unpainted matte finish.
- 51.8 The shell shall have black, or white, high temperature, flame resistant, flexible edge trim composed of an aluminum-cored, thermoplastic rubber (TPR).
- 51.9 The edge-trim shall be secured around the entire brim of the helmet by crimping the aluminum core, and secured at the mating ends with a high-temperature adhesive and clamped by the helmet hanger clip at the edge of the rear brim.
- 51.10 <u>Impact Liner</u>: The helmet shall include an impact liner, which is comprised of rigid-cell, high-temperature urethane foam cap that covers the inner crown of the helmet. The impact liner shall be modular and field-removable for periodic inspection of the foam's integrity. The impact liner shall be incorporated to provide increased thermal and impact protection.
- 51.11 <u>Head Suspension</u>: The helmet shall consist of a 6-way head suspension system, attached to the impact cap. The head suspension system shall comprise of three (3) fixed 0.75" wide nylon straps mounted at six (6)points on the impact liner and fastened at their intersection to form the 6-way overhead strap assembly. The straps shall be attached to the impact cap by means of a rigid plastic strap that locks the straps into the lugs of the impact cap liner.
- 51.12 <u>Sizing adjustment</u>: The size of the headband shall be adjustable to fit the wearer's head by means of a ratchet adjustment system. The headband shall have a head size range of 6-3/8 to 8 3/8, adjustable in 1/8" increments. The headband shall be attached to the sides of the impact cap liner by a minimum of four (4) flexible retention tabs.
- 51.13 <u>Chinstrap</u>: The chinstrap shall be constructed of a minimum of three (3) pieces of <sup>3</sup>/<sub>4</sub>" wide, minimum, spun-Nomex webbing, which are connected by a high temperature, super-tough, thermoplastic quick-release buckle on the left side of the helmet, and a cast zinc postman's slide buckle on the right side of the helmet. The middle section shall be a minimum of 23" in length and the total length of the chinstrap shall be 35" at full extension, end to end, or equivalent system.

Bidder's Response:

### **Bid Specifications**

# 51.0 <u>Specifications for Fire Fighting Helmets</u>: (Continued)

- 51.14 <u>Comfort Liner</u>: The helmet shall have a removable comfort liner, which consists of a headband cushion line and a ratchet pad, which shall be removable. Both components shall be produced from a foam-core laminated system, which is composed of a soft black flame-resistant flannel material against the user's head and backed by a comfort liner is machine-washable, and can be easily upgraded to a leather-lined deluxe version.
- 51.15 <u>Shell Release System</u>: The impact liner, complete with suspension system and chinstrap assembly (retained as described above) shall be retained to the helmet shell by means of two (2) thermoplastic retention clips mounted under the eye/face shield protection hardware. This design shall enable the shell to be released from the helmet when impacted from below the brim, reducing the chance of being injured by the chinstrap, and leaving the impact cap on the wearer's head for continued thermal and impact protection.
- 51.16 <u>Ear/Neck Protection</u>: The helmet shall provide for ear and neck protection with a 7.25" wide, 19" long, full cut earlap with an expanded opening at the neck. The triple-layer earlap shall consist of a 4.5 oz./yd., minimum, yellow or black colored Nomex outer layer, and two flame resistant black flannel inner layers, or equivalent.

The earlap shall be secured to the impact liner by two Velcro tabs at either end of the top earlap and one continuous length of Velcro along the top edge of the earlap. The earlap shall be machine washable and shall be easily upgraded to a PBI/Kevlar or Bloodbome Pathogen earlap. The ear and neck protector shall be removable without interfering with the overhead strap assembly in any way and without removing any part of the helmets suspension, or equivalent.

51.17 <u>Bourke Eye Shield; or equal</u>: The Eye Shield should be comprised of two 6.5" (W) x 2.75" (L) x 0.2" (D) polyarulate lenses that pivot u and down at 90° simultaneously. The lenses are fastened to a single keep and cable (spring) system that allows both lenses to move simultaneously. When not in use, they are low-profile against the underside of the front brim. The entire assembly is mounted to a brass plate, which is secured to the front center brim of the helmet shell. Brackets allow the face shield to be raised above the helmet shell when not in use; or equivalent system.

# Bidder's Response:

# **Bid Specifications**

# 51.0 <u>Specifications for Fire Fighting Helmets</u>: (Continued)

- 51.18 <u>Goggle System</u>: The Goggle System Traditional Fire Helmets should have a goggle system that shall be comprised of a high-temperature, flame and impact resistant goggle lens and frame, a flame-resistant, elastic goggle strap, and goggle retention system. This retention system will lock the goggle onto the helmet brim at the back brim, preventing loss of the goggle when eighter stowed or donned. Both inner and outer surfaces of the goggle lens will have ananti-scratch and anti-fog coating. Both ends of the lens will be reinforced with a fiberglass insulating label for extra durability at elevated temperatures. the lens will be low profile and optically correct; or equivalent system.
- 51.19 <u>Retro-Reflective Trim</u>: The helmet shall have a minimum of eight (8) tetrahedron shaped pieces of Reflexite and Scotchlite, or equal, retro-reflective trim around the exterior of the crown of the helmet shell. There shall be an additional piece of bar-shaped Reflexite, or equal, trim on the exterior slope of the rear brim for maximum daytime and nighttime visibility.

# 52.0 HELMET WARRANTY:

- 52.1 Helmets shall be warranted, for the lifetime of the helmet, to be free of defects in material and workmanship.
- 52.2 The manufacturer shall guarantee, for a period of 10 years from the date of manufacture that any helmet shell shall be replaced free of charge if it is damaged beyond use while worn during normal assigned fire ground activities.
- 52.3 The manufacturer shall be relieved of any replacement liability under this guarantee if there has been a failure to follow the manufacturer's maintenance requirements supplied with each helmet.

# 52.0 Firefighting Gloves:

- 52.1 Gloves should be Innotex; #885s; or equal.
- 52.2 Gloves shall be gauntlet style.
- 52.3 Gloves shall be NFPA 1971 2018 compliant.
- 52.4 The moisture barrier should be Crosstech; or equal.

# <u>Bidder's Response:</u>
	<u>Diu Specifications</u>	Bidder's Response:
52.0	<b><u>Firefighting Gloves</u></b> : (Continued)	
52.5	Lining should be 8.0 Nomex/Kevlar; or equal.	
52.6	Outer shell should be lightweight kangaroo; or equal.	
52.7	The outer shell shall be:	
	<ul><li>52.7.1 Heavy Weight</li><li>52.7.2 Fire Retardant</li><li>52.7.3 Heat Resistant</li><li>52.7.4 A minimum of 3.50 to 4.0 oz. grain Elk hide, or equal.</li></ul>	
53.0	<b><u>Structural Firefighter Boots:</u></b> (Continued)	
53.1	Boots shall be Globe Brand, Structural Shadow 14" Pull On Boot Stock #1201400, or equal.	
53.2	Boots shall meet current NFPA standards.	
53.3	Sizing: Boots shall be available in the following sizes:	
	53.3.1Men's full sizes 5 - 18;53.3.2Men's half sizes 5 $\frac{1}{2}$ - 15 $\frac{1}{2}$ All in narrow, medium, wide and x-wide widths.53.3.3Boots must also be available in Wide Calf modelin the same size range that will provide an additional 3 inchesin circumference at the calf to fit those with larger calves.5.3.4Women's full sizes 5 - 12;5.3.5Women's half sizes 5 $\frac{1}{2}$ - 11 $\frac{1}{2}$ All in narrow, medium, wide, and x-wide widths.	
53.4	Firestorm Leather: Boots shall be made from Firestorm Leathers, or equal. Material shall be heavy weight, flame resistant and water resistant full-grain cattle hide leather measuring $2.0 - 2.2$ mm of thickness for durable performance. It shall be specially softened tumbled leather in high flex areas to move with the foot, or equivalent	
53.5	Crosstech Footwear Fabric: The boot shall have a full sock, full-height bootie liner made from a package of Ohama lining fabric or equal, 300g felt insulation, minimum, and Crosstech®, or equal, moisture bearer.	
53.6	Molded Heel Counter: A molded heel counter of water-resistant composite material individually molded to fit each size.	

### 

	<b><u>Bid Specifications</u></b>	D:11 / D
53.0	Structural Firefighter Boots: (Continued)	<u>Bidder's Response</u> :
53.7	Boots shall have a composite shank that shall be lighter than steel. Shank shall not transmit heat or cold and shall spring back into shape.	
53.8	Webbing Pull Straps: Straps shall be securely attached to the leather upper by inserting into the collar seam to minimize stitching through the leather and to keep them on for good.	
53.9	Kevlar/Nomex Protective Shield: Boots shall have a protective shield of Kevlar and Nomex, or equal, fiber batting that protects the Crosstech moisture barrier, providing cut resistance and shall add thermal protection.	
53.10	3D Molded Shin Guard: A molded and padded shin guard shall in included to provide extra protection while working on a ladder.	
53.11	Composite Safety Toe Cap: Toe cap shall be lighter than steel;	
	53.13.1 Toe cap shall not transmit heat or cold exceeding NFPA standards.	
53.14	Synthetic Rubber Toe Bumper: Shall be molded synthetic rubber toe bumper providing abrasion resistance when crawling.	
	53.14.1 Bumper shall be cemented and 2-needled stitched to the vamp.	
53.15	3D Molded Footbed: Shall be removable and contoured to cradle and cushion the bottom of the foot and provide arch support.	
53.16	3D Composite Lasting Board: Shall be included with boot uppers and lasted to a molded and contoured lasting board with a built-in flex zone in the forefoot and a torsionally stable heel.	
53.17	Cement Construction: Contoured outsoles shall be cement bonded to the bottom and sides of the upper using a 2-part lining adhesive that forms a bond stronger than the material it attaches.	
53.18	The collar should have a rolled top edge formed by folding the the leather to help boots slide against the pants liner; or equal.	

#### **Bid Specifications**

#### 53.0 <u>Structural Firefighter Boots:</u> (Continued)

53.19 Composite penetration resistant insole barrier shall be provided by a composite insole to maximize flexibility and insulate from heat and cold transmission. Must meet NFPA standards.

#### 54.0 IH Pant (Outer Shell):

- 54.1 The outer shell should be constructed of TENCATE "Agility<sup>™</sup> with ENFORCE <sup>™</sup> technology Kevlar®/PBO/Nomex® blend material with an approximate weight of 6.6 oz. per square yard in a twill weave; or equivalent system.
- 54.2 The shell must be treated with SST<sup>™</sup> (SUPER SHELLTITE).
- 54.3 The color shall be light gold.

#### 55.0 <u>The Thermal Liner - Pants:</u>

- 55.1 The thermal liner should be constructed of TENCATE "CALDURA® ELITE SL2i"; with an approximate weight of 7.7 oz. per square yard; or equivalent system.
- 55.2 The thermal liner should consist of one layer of 1.5 oz. and one layer of 2.3 per square yard Nomex® E-89<sup>TM</sup> spunlaced Nomex®/ Kevlar® aramid blend, quilt stitched to a Kevlar® filament and FR rayon/para-aramid/nylon inherently wicking Caldura® face cloth; or equivalent system.
- 55.3 The thermal liner should be attached to the moisture barrier and bound together by bias-cut neoprene coated cotton/polyester around the perimeter; or equivalent system.

#### 56.0 <u>The Moisture Barrier – Pants</u>:

- 56.1 The moisture barrier should be W.L. Gore CROSSTECH® black moisture barrier Type 2F which is comprised of a Nomex® IIIA woven pajama check substrate; or equivalent.
- 56.2 The CROSSTECH®, or equal,moisture barrier should have an expanded PTFE (polytetrafluoroethylene) matrix having a continuous hydrophilic and oleophobic coating that is impregnated into the matrix; or equivalent.

	<u>Blu Specifications</u>	<b>Bidder's Response:</b>
56.0	<b>Moisture Barrier - Pants:</b> (Continued)	<u>Diuder 5 Response</u> .
56.3	CROSSTECH®, or equal, moisture barrier seams shall be sealed with GORE-SEAM® tape; or equivalent.	
57.0	Sealed Moisture Barrier Seams:	
57.1	All barrier seams shall be sealed with a minimum 1 inch wide sealing tape; or equivalent.	
57.2	One side of the tape shall be coated with a heat activated glue adhesive and shall be oriented toward the moisture barrier seam; or equivalent system.	
57.3	The adhesive shall be activated by heat and the and the sealing tape shall be applied to the moisture barrier seam by means of pressure exerted by rollers of that purpose; or equivalent.	
58.0	Method of Thermal Liner/Moisture Barrier Attachment for Pants:	
58.1	The thermal liner and moisture barrier shall be completely removable from the pant shell.	
58.2	A minimum of nine snap fasteners should be spaced along the waistband to secure the thermal liner/moisture barrier to the s shell; or equivalent.	
58.3	The legs of the thermal liner/moisture barrier shall be secured to the shell by means of Ara-Shield®, or equal, snap fastners, 2 per leg; or equivalent.	
58.4	The Ara-sield <sup>®</sup> , or equal, snap tabs shall be color coded to a corresponding color-coded snap tab in the liner system to the outer shell after inspection or cleaning is completed; or equivalent system.	
59.0	<u>Stitching</u> :	
59.1	The outer shell shall be assembled using stitch type # 301, #401, #514 and 516; or equivalent.	
59.2	The thermal liners and moisture barriers shall be assembled using stitch type # 301, #401, #501, #514 and #516; or equivalent.	

	<u>Blu Specifications</u>	<b>Bidder's Response:</b>
59.0	<b><u>Stitching - Pants:</u></b> (Continued)	<u>Diudei 5 Response</u> .
59.3	Major A outer shell structural seams, major B structural liner seams, major B structural liner seams and shall have a minimum of 8 to 10 stitches per inch; or equivalent.	
59.4	All Major A seams should be sewn with ball point needles only; or equivalent.	
59.5	All seams should be continuously stitched.	
60.0	Body:	
601.	The body of the shell shall be constructed of four separate body panels consisting of two front panels and two back panels; or equivalent.	
60.2	The body panels and seam lengths shall be graded to size to assure accurate fit in a broad range of sizes.	
60.3	The front body panels shall be wider than the rear body panels to provide more fullness over the knee area.	
61.0	Sizing:	
61.1	The pants shall have gender specific even sizes ranging from 24 to 56, minimum, regular and relaxed fit.	
62.0	Pant Liner System:	
62.1	The combined moisture barrier and the thermal liner shall be completely removed from the pant.	
62.2	The thermal liner and moisture barrier layers of the liner system shall be stitched together and bound around the top waist and cuffs with Bias-Cut Neoprene coated cotton/polyester binding for a finished appearance that prevents fraying and wicking of contaminants; or equivalent.	
62.3	The design of the liner system should incorporate darts in the knee area proving a contour to the leg and shall have a reverse boot cut at the rear of the cuff and a concave at the front to keep the liner from hanging below the shell; or equivalent system.	

#### **Bid Specifications**

63.0	Liner	Access	<b>Opening</b>	- Pants:

- 63.1 The thermal liner and moisture barrier layers of the pant liner system should be constructed in a way as to allow an access opening for interior inspection, service and replacement.
- 63.2 The thermal liner an moisture barrier should be stitched together for security and prevention of inadvertent use of one layer without the other.
- 63.3 The liner system shall be reinforced at the base of the crotch by means of a strip of additional material measuring approximately <sup>3</sup>/<sub>4</sub> inches wide by 3 inches long; or equivalent system.
- 63.4 This reinforcing material shall be secured by the binding tape at the bottom of the fly opening, straddling the crotch seam; or equivalent system.
- 63.5 The liner system of the pant shall incorporate an opening along the back of the waistline for ease in inspecting the inner layers and to facilitate performing the completer Liner Inspection; or equivalent system.
- 63.6 The thermal liner and moisture barrier should be individually bound with a neoprene coated bias out tape and joined together on each of the front panels, along the waistband from the front fly opening to side seam; or equivalent system.
- 63.7 The back of the liner system should be allowed to remain open with two snaps on either side of the back seam to attach the moisture barrier layer to the liner layer; or equivalent system.

#### 64.0 <u>Waistband</u>:

- 64.1 The waist area of the pants shall be reinforced on the inside with a separate piece of black aramid outer shell material, cut on the bias (diagonally); or equivalent system.
- 64.2 The reinforcement should be folded in half for a finished bottom edge and should have a finished width of not less than approximately 2 <sup>1</sup>/<sub>2</sub> inches; or equivalent.

#### **Bid Specifications**

#### **Bidder's Response:** 64.0 Waistband: 64.3 The top of the waistband reinforcement should be double stitched to the outer shell at the top of the pants; or equivalent. 64.4 The lower edge of the waistband should be unattached to the shell to accept the thermal liner and moisture barrier; or equivalent system. 64.5 The top of the thermal and moisture barrier should be secured to the underside of the waistband reinforcement; by means of nine snaps, spaced equidistant along the length of the waistband reinforcement; or equivalent system. 65.0 **External/Internal Fly Flap:** 65.1 The pants should have a vertical outside fly flap constructed of two layers of outer shell material, with a layer of moisture barrier material sandwiched between; or equivalent. 65.2 The fly flap should be double stitched to the left front body panel and should measure approximately 2<sup>1</sup>/<sub>2</sub> inches wide with a length graded to the size based on waist measurement and reinforced with bar tacks at the base; or equivalent system. 65.3 An internal fly flap constructed of one layer of outer shell material, thermal liner and specified moisture barrier, measuring approximately 2 inches wide, with a length graded to size based on waist, should be sewn to the leading edge of the right front body panel; or equivalent system. 65.4 The inside of the right body panel should be thermally enhanced directly under the outside fly with a layer of moisture barrier and thermal liner material; or equivalent system. The underside of the outside fly flap should have a $1\frac{1}{2}$ 65.5 inch wide piece of FR loop fastener tape quadruple stitched along the full length and through the shell material only; Stitching should not penetrate the moisture barrier insert between the two layers to insure greater thermal protection and reduce water penetration; or equivalent system.

#### **Bid Specifications**

#### 65.0 <u>External/Internal Fly Flap</u>: (Continued)

- 65.6 A corresponding strip of 1 <sup>1</sup>/<sub>2</sub> inch wide piece of FR hook fastener tape should be quadrupled stitched to the outside right front body panel securing the fly in a closed position; or equivalent system.
- 65.7 Appropriate snap fastener halves should be installed at the leading edge of the waistband for the purpose of further securing the pants in a closed position; or equivalent system.

#### 66.0 <u>Retroreflective Fluorescent Trim</u>:

- 66.1 The pants shall have a stripe of retroreflective fluorescent trim encircling each leg blow the knee to comply with the requirement of NFPA # 1971 in 3 inch lime/yellow
  3M Scotchlite<sup>™</sup> Triple Trim, or equal (L/Y borders with silver center).
- 66.2 The bottom of trim band shall be approximately 3' above cuff.

#### 67.0 <u>Reinforced Trim Stitching</u>:

67.1 All reflective trim should be secured to the outer shell with Nomex®, or equal, thread using a locking chain stitch protected by TrimTrax® system, or equivalent system.

#### 67.0 Aramid Belt with Belt Loops; or equal:

- 67.1 If the IH Pant is ordered with either an Escape Belt or a Harness, that belt should be installed as the positive pant closure; or equal.
- 67.2 If neither an Escape Belt or a Harness is specified, the IH Pant should include an approximate 2 inch wide belt constructed of aramid webbing material with an adjustable hi-temp thermoplastic Delrin buckle serving as the primary positive locking closure; or equivalent system.
- 67.3 The buckle should also provide a quick-release mechanism for donning and doffing.
- 67.4 The pants should be equipped with a series of belt loops, spaced around the waist to accommodate an Escape Belt, a Harness or the aramid belt.

67.0	Aramid Belt with Belt Loops: (Continued)	<b>Bidder's Response</b> :
67.5	One loop should be located on the rear of the waist, centered over the rear seam, measuring approximately 3 <sup>1</sup> / <sub>2</sub> inches.	
67.6	There should be two additional wide loops at the front of each pant; or equivalent.	
67.7	The top of the these two belt loops should be angled, with the top measuring approximately $2\frac{1}{2}$ inches and the bottom measuring approximately $4\frac{1}{2}$ inches; or equivalent system.	
67.8	Under each of the front belt loops there should be a slit to accommodate an internal harness passing from the inside of the pant to the outside; or equivalent system.	
67.9	The slits should be at the same angle as the front belt loops, reinforced with black Ara-Shield®, or equal, material, having an opening that measures approximately 3 inches, or equal.	
67.10	There should be 2-piece loops constructed of a double layer of black aramid material inside the shell in the hip area; or equivalent.	
67.11	The top and bottom of the loops should attach to each other with an approximate 1 inch by 1 inch FR hook and loop fastener tape sewn to the ends; or equivalent.	
67.12	There should be two rappelling harness loops installed at the rear of the pant, just behind each side seam; or equivalent.	
67.13	The loops should be constructed of a double layer of outer shell material and should be a 2-piece design – top and bottom; or equivalent.	
67.14	The top and bottom of each loop should attach to each other with snap fasteners and FR hook and loop fasteners; or equivalent.	
68.0	Carabiner Hold Down Strap:	
68.1	The pant should be equipped with a carabiner hold down strap.	

68.0	<b><u>Carabiner Hold Down Strap</u></b> : (Continued)	<b>Bidder's Response:</b>
68.2	The strap should be constructed of double layer black Ara-Shield®, or equal, material consisting of two separate portions to form a strap with an opening of approximately three inches; or equivalent system.	
68.3	Each portion of the strap should measure approximately 1 <sup>3</sup> / <sub>4</sub> inches wide by 3 <sup>1</sup> / <sub>2</sub> long; or equivalent.	
68.4	There should be a pirece of 1 <sup>1</sup> / <sub>2</sub> by 2 <sup>1</sup> / <sub>2</sub> inch hook FR fastener tape single need stitched to the strap approximately <sup>1</sup> / <sub>4</sub> inch up from the bottom; or equivalent design.	
68.5	The upper portion of the strap should be double needle stitched in the vertical position, opening downwards to interface with the lower portion of the strap; or equivalent.	
68.6	There should be a piece of corresponding 1 ½ by 2 ½ inch loop FR fastener tape single needle stitched to the strap approximately ½ inch down from the top of the strap; or equivalent.	
68.7	On both the upper and lower portions of the strap there should be a bar tack centered the double needle stinging; or equivalent system.	
68.8	The strap should be located behind the left front belt loop.	
68.9	The IH Pant should have an additional carabiner hold down strap added to the front right belt loop if ordered with the Escape belt; or equivalent system.	
69.0	Axtion® Seat; or equal:	
69.1	The rise of the rear pant center back seam, from the top of the waistband to where it intersects the inside leg seams at the crotch, should exceed the rise at the front of the pant by approximately 8 inches; or equivalent.	
70.0	Expansion (Bellows) Pockets (Left):	
70.1	One, 2 inch deep by 10 inch wide by 10 inch high bellows pocket should be placed over the outer leg seams at thigh level; or equivalent system.	

#### **Bid Specifications**

#### 70.0 <u>Expansion (Bellows) Pockets (Left)</u>: (Continued)

- 70.2 The pocket should be sewn to the pant with two rows of lock stitching and should provide two aluminum eyelets, installed at the bottom of the pocket for water drainage; or equivalent design.
- 70.3 The pocket should be reinforced with an additional layer of Kelvar, or equal, material sewn to the inside.
- 70.4 The pocket flap should be rectangular in shape, constructed of two layers of outer shell material and double stitched to the outer shell; or equivalent.
- 70.5 Two pieces of 1 <sup>1</sup>/<sub>2</sub> inch by 3 inch FR hook fastener tape should be installed on the inside of the pocket flap vertically on each end of the flap; or equivalent.
- 70.6 Two pieces of corresponding 1 <sup>1</sup>/<sub>2</sub> inch by 3 inch FR loop fastener tape should be installed horizontally on the outside of each end of pocket near the top and positioned to engage the hook fastener tape; or equivalent.
- 70.7 Each pocket flap should be reinforced with backtacks at the uppermost corners; or equivalent.

#### 71.0 Expansion (Bellows) IH Rope Pocket (Right):

- 71.1 One 2 inch deep x 10 inch wide x 10 inch high bellows pocket should be placed over the outer leg seam at thigh level.
- 71.2 The pocket should be sewn to the pant with two rows of lock stitching and should provide two eyelets installed at the bottom of each pocket, for water drainage; or equivalent system.
- 71.3 The pocket should be reinforced with an additional layer of outer Kevlar material sewn to the inside; or equivalent.
- 71.4 The pocket flap should be rectangular in shape and measure a minimum of 6 inches by a minimum of 11 inches, constructed of two layers of outer shell material and double stitched to the outer shell; or equivalent.

#### **Bid Specifications**

#### 71.0 Expansion (Bellows) IH Rope Pocket (Right):

- 71.5 Six pieces of 1 <sup>1</sup>/<sub>2</sub> inch by 3 inch FR loop fasteners should be installed horizontally on the outside of the pocket near the top and positioned to engage the hook fastener tape; or equivalent system.
- 71.6 Three pieces of 1 <sup>1</sup>/<sub>2</sub> inch by 3 inch FR loop fastener tape should be installed horizontally on the outside pocket near the top and positioned to engage the hook fastener tape.
- 71.7 The pocket flap should be reinforced with backtacks at the uppermost corners; A two-piece loop constructed of a double layer of black outer shell material should be installed under the front edge of the flap; or equal.
- 71.8 The top and bottom of the loop should attach to each other with a 1 inch by 1 inch FR hook and loop fastener tape sewn to ends; or equivalent.
- 71.9 Inside the pocket, a strap constructed of black outer shell material measuring approximately 1 inch by 9 inches (when hook and loop is engaged) should run the full vertical height of the pocket where it shall secure at the top with hook and loop fastener tape; or equivalent.
- 71.10 A second strap should be installed horizontally at the top front corner of the pocket and should be constructed of black outer shell material and measure approximately 1 inch by 4 inches and should be sewn at one end and attached at the other end with hook and loop fastener tape; or equal.

#### 72.0 <u>Axtion® Knee; or equal</u>:

- 72.1 The outer shell of the pant legs should be constructed with horizontal expansion pleats in the knee area with corresponding darts in the liner to provide added fullness for increased freedom of movement and maximum flexibility; or equal.
- 72.2 The pleats should be folded to open outwardly towards the side seams to insure no restriction of movement.
- 72.3 The knee should be installed proportionate to the pant inseam, in such a manner that it falls in an anatomically correct knee location.

#### **Bid Specifications**

#### 72.0 <u>Axtion® Knee; or equal</u>, (Continued):

- 72.4 The thermal liner should be constructed with four darts per leg in the front of the knee; or equivalent.
- 72.5 Two darts should be located above the knee (one on each side) and two shall be located below the knee (one on each side); or equivalent.
- 72.6 The darts in the liner should provide a natural bend at the knee.

#### 73.0 Liner Knee Thermal Enhancement:

- 73.1 A minimum of one additional layer of specified thermal liner and one additional layer of moisture barrier material, measuring a minimum of 9 inches by 11 inches, should be sewn to the knee area of the liner system for added CCHR protection and increased thermal insulation; or equivalent.
- 73.2 The knee thermal enhancement layers should be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only; or equivalent.

#### 74.0 Knee Reinforcements:

- 74.1 The knee area should be reinforced with black suede leather; or equal.
- 74.2 The knee reinforcement shall be centered on the leg to insure proper coverage when bending, kneeling and crawling.
- 74.3 The knee reinforcements should measure approximately 9 inches wide by 12 inches high and should be double stitched to the outside of the outer shell in the knee area; or equivalent.

#### 75.0 Padding under Knee Reinforcements:

75.1 Padding for the knees should be accomplished with one layer of Silizone® foam, or equal, sandwiched between the thermal liner and moisture barrier; or equivalent system.

		<b>Bidder's Response:</b>
76.0	Pant Cuff Reinforcements:	
76.1	The cuff area of the pants should be reinforced with black suede leather; or equivalent.	
76.2	The cuff reinforcement should not be less than 2 inches in width and folded in half, approximately one half inside and one half outside the end of the legs for greater strength and abrasion resistance; or equivalent.	
77.0	Padded Rip-Cord Suspenders & Attachment:	
77.1	On the inside waistband should be attachments for the standard "H" style "Padded Rip-Cord" suspenders. There should be 4 attachments total $-2$ front, 2 back.	
77.2	The suspender attachments should be constructed of black Ara-Shield®, or equal, material measuring approximately ½ inch wide by 3 inches long; or equivalent.	
77.3	The suspender attachments should be sewn in a horizontal position on the ends only to form a loop; or equivalent.	
77.4	A pair of "H" style "Padded Rip-Cord" suspenders should be specially configured for use with the pants.	
77.5	The main body of the suspenders should be constructed of 2 inch wide black webbing straps; or equivalent.	
77.6	The suspenders should run over each shoulder to a point approximately shoulder blade high on the back, where they should be joined by a 2 inch wide horizontal piece of webbing measuring approximately 8 inches long, forming the "H"; or equivalent system.	
77.7	The shoulder area of the suspenders should be padded for comfort by encasing the webbing with aramid batting and wrapping around black aramid; or equal.	
77.8	The rear ends of the suspenders should be sewn to 2 inch wide elasticized webbing extensions measuring approximately 8 inches in length and terminating with thermoplastic loops; or equal design.	

		<b>Bidder's Response:</b>
77.0	Padded Rip-Cord Suspenders & Attachment: (Continued)	
77.9	The forward ends of the suspender straps should be equipped with specially configured black powder coat non-slip metal slides with teeth; or equivalent system.	
77.10	Through the metal slides should be the 9 inch lengths of strap webbing "Rip-Cords" terminating with thermoplastic loops on each end; or equivalent system.	
77.11	Threaded through and attached to the thermoplastic loops on the forward and rear ends of the suspenders should be black aramid suspender attachments incorporating two snap fasteners. or equivalent system.	
77.12	The aramid suspender attachments should be threaded through the suspender attachment loops on the inside waistband of the pants; or equivalent.	
77.13	The aramid suspender attachments should then fold over and attach to themselves securing the suspender pants; or equal.	
78.0	Reverse Boot Cut:	
78.1	The outer shell pant leg cuffs should be constructed such that the back of the leg is approximately 1 inch shorter than the front; or equal.	
78.2	The liner should also have a reverse boot cut at the rear of the cuff and concave cut at the front to keep the liner from hanging below the shell; or equal.	
79.0	Third Party Testing and Listing Program:	
79.1	All components used in the construction of these garments shall be tested for compliance to NFPA Standard # 1971 by Underwriters Laboratories (UL).	
79.2	Underwriters Laboratories shall certify and compliance to that standard.	
79.3	Such certification shall be denoted by the Underwriters Laboratories certification mark.	

00.1		<b>Bidder's Response:</b>
80.1	Labels:	
80.1	Appropriate warning labels shall be permanently affixed to each garment.	
80.2	The NFPA Certification label shall include the following information:	
	<ul> <li>a. Compliance to NFPA Standard # 1971</li> <li>b. Underwriters Laboratories classified mark</li> <li>c. Manufacturer's name</li> <li>d. Manufacturer's address</li> <li>e. Manufacturer's garment identification number</li> <li>f. Date of manufacture</li> <li>g. Size</li> </ul>	
81.0	ISO Certification/Registration:	
81.1	The protective clothing manufacturer shall be certified and registered to ISO Standard 9001 to assure satisfactory level of quality.	
82.0	<u>Warranty</u> :	
82.1	The manufacturer shall warrant these jackets and pants to be free from defects in materials and workmanship for their serviceable life when properly used and cared for.	
83.0	Hook and Support Program:	
83.1	Support program shall cover hook and loop tape that has begun to fray or otherwise degrade from normal wear.	
83.2	This program shall remain in effect for a period of five years from the original date of manufacture of the garment.	
83.3	This program should cover the repair or replacement, without charge, of any hook and/or loop on the garments produced by the manufacturer providing the garments are otherwise serviceable.	

	<b>Bid Specifications</b>	D.11 7 D
84.0	Sizing by Vendor:	<u>Bidder's Response</u> :
84.1	Both male and female sizing samples shall be available.	
84.2	The vendor shall be available to perform sizing requirements within 96 hours of written notice.	
85.0	Garment Training and Support:	
85.1	On-site care and maintenance training shall be provided by the manufacturer.	
85.2	Training shall be in compliance with NFPA 1851, current edition, at the conclusion of which each participant shall receive a certificate of completion.	
85.3	An on-site OSHA mandated training class on the Knowing the Limits of Your PPE shall be provided at no charge. The training shall include structural firefighting coat, pant and boot.	
86.0	Bar-Code/Record Keeping Interface:	
86.1	A 1 dimensional barcode, in the interleaved 2 of 5 format shall be printed on the label of each separable layer of the garment.	
86.2	The barcode shall represent the serial number of the garment. The manufacturer shall be able to provide a detailed list of each asset of a drop-shipped order, and shall include the following: a. Brand b. Order Number c. Serial Number d. Style Number e. Color f. Description g. Chest/Waist Size h. Jacket/Pant Length i. Sleeve Length j. Date of Manufacturer k. Mark-For Data	
86.3	This information shall be able to be imported into the manufacturers web-based system design to facilitate the organization and tracking of assets in accordance with the cleaning and inspection requirements of OSHA and NFPA 1851.	

07 A	Encontions to Creations.	<b><u>Bidder's Response</u>:</b>
87.0	Exceptions to Specifications:	
87.1	Any and all exceptions to the above specifications must be clearly stated for each heading.	
88.0	Country of Origin:	
88.1	Jackets and Pants shall be manufactured in the United States.	
89.0	<u>Gear Bag</u> :	
89.1	A gear bag shall be provided with each set of turn-out gear.	
89.2	Gear bag shall be capable of storing coat, pant, helmet, boots, hood, and gloves.	
89.3	Gear bag shall have a minimum of three zippered compartments.	
90.0	Logos:	
90.1	The garment brand shall be identified by means of red FR Nomex®, or equal, thread embroidery on the top of the left collar denoting the manufacture; or equal.	
90.2	There should be a reflective label specific to the garment style, measuring 1" wide by 4" long, installed on left pocket flap; or equivalent.	
91.0	Resoling Service:	
91.1	The winning vendor should have resoling services available at their factory as needed.	

## PRICE PAGE

#### Base Year - 2019 through 2020

<u>Item #</u>	<b>Item Description:</b>	<b>Bid Price</b> :	
0001	Turnout Coat	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0002	Turnout Pant	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0003	IH Ready Pant	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0004	Internal Harness	•	
	Class 2	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0005	Hanging Letter Patch	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0006	Letters Reflective	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		

# PRICE PAGE

0007	Leather Boots Blend Firefighter Hoods, MFG #KC-3038185 or Particulate Hood or equal.	\$ /Pair
	Brand Name Being Bid:	
	Model & Stock Number:	
0008	Helmets	\$ /Each
	Brand Name Being Bid:	
	Model & Stock Number:	
0009	Helmet Leather Front	\$ /Each
	Brand Name Being Bid:	
	Model & Stock Number:	
00010	Particulate Hood; or equal	\$ /Each
	Brand Name Being Bid:	
	Model & Stock Number:	
00011	Nomex Hood, or equal	\$ /Each
	Brand Name Being Bid:	
	Model & Stock Number:	
00012	Gloves	\$ /Each
	Brand Name Being Bid:	
	Model & Stock Number:	
00013	Gear Bag	\$ /Each
	Brand Name Being Bid:	
	Model & Stock Number:	
TOTAL E THRU #0	BID PRICE FOR BASE YEAR, ALL ITEMS #0001 0013	\$

## PRICE PAGE

#### Renewal - 2020 through 2021

<u>Item #</u>	<b>Item Description:</b>	<b>Bid Price</b> :	
0001	Turnout Coat	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0002	Turnout Pant	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0003	IH Ready Pant	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0004	Internal Harness	•	
	Class 2	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0005	Hanging Letter Patch	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0006	Letters Reflective	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		

# PRICE PAGE

0007	Leather Boots Blend Firefighter Hoods, MFG #KC-3038185 or Particulate Hood or equal.	\$	/Pair
	Brand Name Being Bid:		
	Model & Stock Number:		
0008	Helmets	\$	/Each
	Brand Name Being Bid:		
	Model & Stock Number:		
0009	Helmet Leather Front	\$	/Each
	Brand Name Being Bid:	-	
	Model & Stock Number:		
00010	Particulate Hood; or equal	\$	/Each
	Brand Name Being Bid:	-	
	Model & Stock Number:		
00011	Nomex Hood, or equal	\$	/Each
	Brand Name Being Bid:	-	
	Model & Stock Number:		
00012	Gloves	\$	/Each
	Brand Name Being Bid:	-	
	Model & Stock Number:		
00013	Gear Bag	\$	/Each
	Brand Name Being Bid:	-	
	Model & Stock Number:		
	BID PRICE FOR FIRST RENEWAL YEAR MS #1001 THRU #10013	\$	

# Bidder Information: Company Name: Address: City/State/Zip: Telephone #: (\_\_\_\_) Fax #: (\_\_\_\_) E-Mail Address: Authorized Printed Name and Title: Authorized Signature:

(Per LA R.S. 38:2212(A)(c)(i) - See General Conditions Item #22, Page 4 of these bid specifications.)