



**PURCHASING DEPARTMENT
REQUEST FOR PROPOSAL**

15-017

**FIRE FIGHTING
CLOTHES/BUNKER GEAR**

**BIDS DUE TUESDAY, MAY 19, 2015
BY 2:00 P.M.**

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INVITATION TO BID

The City of North Richland Hills is accepting sealed bids from all interested parties for:

- Bid Number: 15-017
- Bid Type: REQUEST FOR PROPOSAL
- Bid Name: Fire Fighting Clothes/Bunker Gear
- Bid Due Date: Tuesday, May 19, 2015
- Bid Due Time: 2:00 P.M. Central Standard Time
- Deadline for questions:
 - Date: Thursday, May 14, 2015
 - Time: 12:00 P.M. Central Standard Time

DOCUMENTS MAY BE SUBMITTED ELECTRONICALLY VIA:

www.publicpurchase.com

DOCUMENTS MAY BE DELIVERED TO:

City of North Richland Hills
Purchasing, Attn: 15-017 Fire Fighting Clothes/Bunker Gear
7301 NE Loop 820
North Richland Hills, TX 76180

If delivering a bid packet please include ***One (1) hard copy and One (1) soft copy on Flash drive or CD-ROM.*** Submit documents in a sealed envelope with the following information marked plainly on the front:

**ATTN: PURCHASING DEPARTMENT
15-017 FIRE FIGHTING CLOTHES/BUNKER GEAR**

No oral explanation in regard to the meaning of the specifications will be made, and no oral instructions will be given after the pre-bid meeting and before the award of the contract. Requests from interested vendors for additional information or interpretation of the information included in the specifications should be directed in writing as a question related to this bid on Public Purchase and the question will be answered on Public Purchase. All addendums will also be posted to Public Purchase. It will be the vendor's responsibility to check all information related to this bid on Public Purchase before submitting a response.

The City of North Richland Hills reserves the right to reject in part or in whole all bids submitted, and to waive any technicalities for the best interest of the City of North Richland Hills.

GENERAL CONDITIONS

In submitting this bid, the Bidder understands and agrees to be bound by the following terms and conditions. These terms and conditions shall become a part of the purchase order or contract and will consist of the invitation to bid, specifications, the responsive bid and the contract with attachments, together with any additional documents identified in the contract and any written change orders approved and signed by a city official with authority to do so. All shall have equal weight and be deemed a part of the entire contract. If there is a conflict between contract documents, the provision more favorable to the City shall prevail.

1. BID TIME

It shall be the responsibility of each Bidder to ensure his/her bid is turned in to the City of North Richland Hills on or before **2:00 P.M., Tuesday, May 19, 2015**. The official time shall be determined by the clock located at the switchboard in the North Richland Hills City Hall lobby. Bids received after the time stated above will be considered ineligible and returned unopened.

All attached bid documents are to be returned completely filled out, totaled, and signed. Envelopes containing bids must be *sealed*. The City of North Richland Hills will not accept any bid documents other than the attached.

2. WITHDRAWING BIDS/PROPOSALS/QUOTES

Bids may be withdrawn at any time prior to the official opening; request for non-consideration of bids must be made in writing to the Purchasing Manager and received prior to the time set for opening bids. The bidder warrants and guarantees that his/her bid has been carefully reviewed and checked and that it is in all things true and accurate and free of mistakes. Bidder agrees that a bid price may not be withdrawn or canceled by the bidder for a period of ninety (90) days following the date designated for the receipt of bids.

3. IRREGULAR BIDS/PROPOSALS/QUOTES

Bids will be considered irregular if they show any omissions, alterations of form, additions, or conditions not called for, unauthorized alternate bids, or irregularities of any kind. However, the City of North Richland Hills reserves the right to waive any irregularities and to make the award in the best interest of the City.

4. REJECTION/DISQUALIFICATION

Bidders will be disqualified and/or their bids rejected, among other reasons, for any of the specific reasons listed below:

- a) Bid received after the time set for receiving bids as stated in the advertisement;
- b) Reason for believing collusion exists among the Bidders;
- c) Bid containing unbalanced value of any item; bid offering used or reconditioned equipment;
- d) Where the bidder, sub-contractor or supplier is in litigation with the City of North Richland Hills or where such litigation is contemplated or imminent;
- e) Uncompleted work which in the judgment of the City will prevent or hinder the prompt completion of additional work, or having defaulted on a previous contract;
- f) Lack of competency as revealed by reference checks, financial statement, experience and equipment, questionnaires, or qualification statement;
- g) Bid containing special conditions, clauses, alterations, items not called for

or irregularities of any kind, which in the Owner's opinion may disqualify the Bidder.

However, the City of North Richland Hills reserves the right to waive any irregularities and to make the award in the best interest of the City of North Richland Hills.

5. BID EVALUATION

Award of bid, if it be awarded, will be made to the lowest responsible bidder or may be awarded to the bidder that offers the goods and/or services at the *best value* for the City (Texas Local Government Code, 252.043). In determining the best value the City will consider the following:

- a) The purchase price; terms and discounts; delivery schedule;
- b) The reputation of the bidder and of the bidder's goods or services;
- c) The quality of the bidders' goods or services;
- d) The extent to which the bidder's goods or services meet the City specifications and needs;
- e) The bidder's past relationship with the City;
- f) Total long term cost to the city to acquire the bidder's goods or services;
- g) Any relevant criteria specifically listed in the specifications;
- h) Compliance with all State and local laws, general conditions and Specifications;
- i) Results of testing, if required;
- j) Warranty and/or guarantee, maintenance requirements and performance data of the product requested;
- k) City's evaluation of the bidder's ability to perform to specifications.

6. AWARD OF BID

The bid award will be made no later than October 1, 2015. No award will be made until after investigations are made as to the responsibilities of the best bidder.

The City of North Richland Hills reserves the right to award bids whole or in part when deemed to be in the best interest of the City. Bidder shall state on bid form if their bid is "all or none", otherwise it shall be considered as agreeing to this section.

Information contained in submitted bid documents shall not be available for inspection until after the award has been made by the City Council. Requests for this information must be submitted in writing.

7. ASSIGNMENT

The successful bidder may not assign his/her rights and duties under an award without the written consent of the North Richland Hills City Manager. Such consent shall not relieve the assignor of liability in the event of default by his assignee.

8. SUBSTITUTIONS/EXCEPTIONS

Exceptions/variations from the specifications may be acceptable provided such variations, in each instance, is noted and fully explained in writing and submitted with bid. NO substitutions or changes in the specifications shall be permitted after award of bid without prior written approval by the Purchasing Manager.

9. DELIVERY / ACCEPTANCE The delivery date is an important factor of this bid and shall be considered during the evaluation process. The City considers delivery time the period elapsing from the time the order is placed until the City receives the order at the specified delivery location.

All material shall be delivered F.O.B. City of North Richland Hills to the address specified at the time of order. Acceptance by the City of North Richland Hills of any delivery shall not relieve the Contractor of any guarantee or warranty, expressed or implied, nor shall it be considered an acceptance of material not in accordance with the specifications thereby waiving the City of North Richland Hills right to request replacement of defective material or material not meeting specifications.

10. NOTICE OF DELAYS

Whenever the contractor encounters any difficulty which is delaying or threatens to delay timely performance, written notice shall immediately be given to the Purchasing Manager, stating all relevant information. Such notice shall not in any way be construed as a waiver by the City of any rights or remedies to which it is entitled by law. Delays in performance and/or completion may result in cancellation of agreement.

11. SALES TAX

The City of North Richland Hills is exempt from Federal Excise and State sales tax; therefore tax must not be added to bid.

12. TIE BIDS

In the event of a tie bid, State Law provides the bid or contract shall be awarded to the local bidder. In cases where a local bidder is not involved, tie bids shall be awarded by drawing lots at the City Council meeting, or as otherwise directed by the Mayor.

13. BRAND NAME OR EQUAL

If items are identified by a "brand name" description, such identification is intended to be descriptive, not restrictive, and is to indicate the quality and characteristics of products that will be satisfactory. As used in this clause, the term "brand name" includes identification of products by make and model.

Such products must be clearly identified in the bid as an equal product and published specifications of the equal products offered must be included with the bid reply.

Bids offering equal products will be considered for award if determined by the Purchasing Manager and the user department to be equal in all material respects to the brand name products referenced. The decision of acceptable "equal" items or variations in the specifications will solely be the City of North Richland Hills.

Unless the bidder clearly indicates in his/her bid that he is offering an "equal" product, his bid shall be considered as offering the brand name product referenced in the invitation for bids.

13. REFERENCES

A minimum of three (3) references, preferably located within the Dallas/Fort Worth Metroplex, must be submitted with each bid. Company name, contact and phone number must be included with each reference.

14. PROHIBITION AGAINST PERSONAL FINANCIAL INTEREST IN CONTRACTS

No employee of the City of North Richland Hills shall have a direct or indirect financial interest in any proposed or existing contract, purchase, work, sale or service to or by the City (CMA-074, Standards of Conduct, Section IV).

16. DISCLOSURE OF INTEREST

Pursuant to Chapter 176 of the Texas Local Government Code, a person, or agent

of a person, who contracts or seeks to contract for the sale or purchase of property, goods, or services with the City of North Richland Hills must file a completed conflict of interest questionnaire which is available online at www.ethics.state.tx.us. The conflict of interest questionnaire must be filed with the City Secretary of the City of North Richland Hills no later than the seventh business day after the person or agent begins contract discussions or negotiations with the City of North Richland Hills or submits to the City of North Richland Hills an application, response to a request for proposal or bid, correspondence, or another writing related to a potential agreement with the City of North Richland Hills. An updated conflict of interest questionnaire must be filed in accordance with Chapter 176 of the Local Government Code. An offense under Chapter 176 is a Class C misdemeanor.

17. TERMINATION/NON PERFORMANCE

Continuing non-performance of the vendor in terms of Specifications shall be a basis for the termination of the contract by the City. The City of North Richland Hills reserves the right to enforce the performance of this contract in any manner prescribed by law or deemed to be in the best interest of the City in the event of breach or default of this contract. The City reserves the right to terminate the contract immediately in the event the successful bidder fails to 1.) Meet delivery schedules or, 2.) Otherwise not perform in accordance with these specifications.

Breach of contract or default authorizes the City to award to another bidder, and/or purchase elsewhere and charge the full increase in cost and handling to the defaulting successful bidder.

The contract may be terminated by either party upon written thirty (30) days notice prior to cancellation without cause.

18. ATTORNEYS FEES

Neither party to this contract shall be entitled to attorney fees for any matter arising under this contract, whether for additional work, breach of contract, or other claim for goods, services, or compensation. All claims for attorney's fees are hereby WAIVED.

19. INDEMNITY

City shall not be liable or responsible for, and shall be saved and held harmless by Contractor from and against any and all suits, actions, losses, damages, claims, or liability of any character, type, or description, including claims for copyright and patent infringement, and including all expenses of litigation, court costs, and attorney's fees for injury or death to any person, or injury to any property, received or sustained by any person or persons or property, arising out of, or occasioned by, directly or indirectly, the performance of Contractor under this agreement, including claims and damages arising in part from the negligence of City, without; however, waiving any governmental immunity available to the CITY under Texas law and without waiving any defenses of the parties under Texas law. The provisions of this indemnification are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity. It is the expressed intent of the parties to this Agreement that the indemnity provided for in this section is an indemnity extended by Contractor to indemnify and protect City from the consequences of City's own negligence, provided, however, that the indemnity provided for in this section shall apply only when the negligent act of City is a contributory cause of the resultant injury, death, or damage, and shall have no application when the negligent act of City is the sole cause of the resultant injury, death, or damage, unmixed with the legal fault of another person or entity. Contractor further agrees to defend, at its own expense, and on

behalf of City and in the name of City, any claim or litigation brought in connection with any such injury, death, or damage.

The Contractor will secure and maintain Contractual Liability insurance to cover this indemnification agreement that will be primary and noncontributory as to any insurance maintained by the City for its own benefit, including self-insurance.

20. PERFORMANCE AND PAYMENT BONDS

In the event the total contract amount exceeds \$100,000, the Contractor shall be required to execute a performance bond in the amount of one hundred (100) percent of the total contract price; if the total contract amount exceeds \$50,000 the contractor shall be required to execute a payment bond in the amount of one hundred (100) percent of the total contract price, each in standard forms for this purpose, guaranteeing faithful performance of work and guaranteeing payment to all persons supply labor and materials or furnishing any equipment in the execution of the contract. It is agreed that this contract shall not be in effect until such performance and payment bonds are furnished and approved by the City of North Richland Hills. No exceptions to this provision allowed.

Unless otherwise approved in writing by the City of North Richland Hills, the surety company underwriting the bonds shall be acceptable according to the latest list of companies holding certificates of authority from the Secretary of the Treasury of the United States.

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and current copy of their power of attorney.

21. INTERLOCAL AGREEMENT

Successful bidder agrees to extend prices and terms to all entities who have entered into or will enter into joint purchasing interlocal cooperation agreements with the City of North Richland Hills.

22. ELECTRONIC PROCUREMENT

The City of North Richland Hills has adopted policies and procedures complying with Local Government Code Section 252.0415, Section 271.906 and Section 2155.062. The City of North Richland Hills may receive submittals in electronic form in response to procurement requests. However, a bid that is submitted non-electronically by the due date and time will be accepted and then entered electronically by Purchasing after the bid opening.

Due care and diligence has been used in preparation of this information, and it is believed to be substantially correct. However, the responsibility for determining the full extent of the exposure and the verification of all information presented herein shall rest solely with the bidder. The City of North Richland Hills and its representatives will not be responsible for any errors or omissions in these specifications, nor for the failure on the part of the proposer to determine the full extent of the exposures. **INSURANCE REQUIREMENTS**

Contractors performing work on City property or public right-of-way for the City of North Richland Hills shall provide the City a certificate of insurance evidencing the coverages and coverage provisions identified herein. Contractors shall provide the City evidence that all subcontractors performing work on the project have the same types and amounts of coverages are required herein or that the subcontractors are included under the contractor's policy. The City, at its own discretion, may require a certified copy of the policy.

All insurance companies and coverages must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must be acceptable to the City of North Richland Hills.

Listed below are the types and amounts of insurance required. The City reserves the right to amend or require additional types and amounts of coverages or provisions depending on the nature of the work

Type of Insurance	Amount of Insurance	Provision
1. Commercial General Liability to include coverage for: a) Premises/Operations b) Products/Completed Operations c) Independent Contractors d) Personal Injury e) Contractual Liability f) Personal/Advertising Injury g) Medial Expense h) Fire Legal Liability i) Underground Hazard j) Explosion/Collapse Hazard k) Patent Infringement l) Copyright Law Violations	\$1,000,000 each occurrence, \$1,000,000 general aggregate; Or \$1,000,000 combined single limits	City to be listed as additional insured and provided 30 day-notice of cancellation or material change in coverage City prefers that insurer be rated B+V1 or higher by A. M. Best or A or higher by Standard & Poors
2. Consultants, architects, engineers, Landscape design specialist, other professional services	\$500,000 Professional Liability with proof that aggregate is still available.	
3. Workers' Compensation & Employers' Liability	Statutory Limits \$500,000 each accident	Alternate employer endorsement required
4. Comprehensive Automobile Liability Insurance, including coverage for loading and unloading hazards, for a) Owned/Leased Vehicles b) Non-Owned Vehicles c) Hired Vehicles	\$500,000 Combined single limit for bodily injury and property damage	

A PURCHASE ORDER WILL NOT BE ISSUED WITHOUT EVIDENCE OF INSURANCE.

NON-COLLUSION AFFIDAVIT OF BIDDER

State of TEXAS County of TARRANT

JAMES P. SMITH verifies that:
(Name)

- (1) He/She is owner, partner, officer, representative, or agent of
CASCO INDUSTRIES INC has submitted the attached
bid: (Company Name)
- (2) He/She is fully informed in respect to the preparation, contents and circumstances in regard to
attached bid;
- (3) Neither said bidder nor any of its officers, partners, agents or employees has
in any way colluded, conspired or agreed, directly or indirectly with any other
bidder, firm or person to submit a collusive or sham bid in connection
with attached bid and the price or prices quoted herein are fair and proper.

[Signature]
SIGNATURE

JAMES P. SMITH
PRINTED NAME

Subscribed and sworn to before me this
18th Day of May 2015.

[Signature]
NOTARY PUBLIC in and for
Tarrant County, Texas.

My commission expires: 11-06-2016



THIS FORM MUST BE COMPLETED, NOTARIZED AND SUBMITTED WITH BI

BID CERTIFICATION

The Undersigned, in submitting this bid, represents and certifies:

- a. He/she is fully informed regarding the preparation, contents and circumstances of the attached bid;
- b. He/she proposes to furnish all equipment/service at the prices quoted herein and bid is in strict accordance with the conditions and specifications stated herein;
- c. There will be at no time a misunderstanding as to the intent of the specifications or conditions to be overcome or pleaded after the bids are opened;
- d. He/she is an equal opportunity employer, and will not discriminate with regard to race, color, national origin, age or sex in the performance of this contract.
- e. The undersigned hereby certifies that he/she has read, understands and agrees that acceptance by the City of North Richland Hills of the bidder's offer by issuance of a purchase order will create a binding contract. Further, he/she agrees to fully comply with documentary forms herewith made a part of this specific procurement.

COMPANY: CASCO INDUSTRIES INC
ADDRESS: 1517 W. CARRIER PKWY ST. 118
CITY, STATE & ZIP: GRAND PRAIRIE, TEXAS 75050
TELEPHONE: 972-522-0800
FAX: 817-796-2911
EMAIL: JSMITH@CASCOINDUSTRIES.COM
SIGNATURE: J.P. Smith
PRINTED NAME: JAMES P. Smith
DATE: 5-18-2015

SPECIAL TERMS AND CONDITIONS
BID # 15-017

City of North Richland Hills has the lead role in developing and encouraging Cooperative Purchasing efforts among the governmental entities that are listed on the next page; therefore it would be in the vendor's best interest to help City of North Richland Hills facilitate this cooperative effort. **A "NO" answer could result in complete rejection of bid.**

Should other Governmental Entities decide to participate in this contract, would you, the Vendor, agree that all terms, conditions, specifications, and pricing would apply?

✓ Yes No

If you, the Bidder, checked yes, the following will apply:

Governmental Entities utilizing Inter-Governmental Contracts with City of North Richland Hills will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by Governmental Entities other than City of North Richland Hills will be billed directly to that Governmental Entity and paid by that Governmental Entity. City of North Richland Hills will not be responsible for another Governmental Entity's debts. Each Governmental Entity will order their own material/services as needed.

Delivery to governmental entities located within Tarrant County will be at no charge or as otherwise provided for in the Award Document. Delivery charges, if any, for governmental entities located outside City of North Richland Hills shall be negotiated between the successful bidder and each governmental entity.

Vendor(s) awarded contract(s) resulting from Request for Bid (RFB) shall be responsible for providing to City of North Richland Hills, at no additional charge, a complete list of all governmental entities currently utilizing the contract and their annual expenditures. This information shall be provided ninety days prior to the expiration of the contract, or as otherwise requested by City of North Richland Hills. Failure to provide the requested information when requested could delay the renewal process.

Evaluation Criteria shall include, but is not limited to the following:

- a. Unit Price
- b. Delivery
- c. Vendor's past performance record with City of North Richland Hills
- d. City of North Richland Hills evaluation of vendor's ability to perform
- e. City of North Richland Hills experience with products bid
- f. Special needs and requirements of City of North Richland Hills
- g. Vendor's agreement to extend pricing under this contract to other governmental entities
- h. Results of testing samples (if needed)

Quantities indicated on the Bid Proposal Forms are ESTIMATED ANNUAL REQUIREMENTS based upon the best available information. The City of North Richland Hills reserves the right to increase or decrease the quantities to meet it's actual needs without any adjustments in the bid price.

Duration of Agreement and Price Adjustments

Pricing shall be based on a twelve (12) month agreement effective the date of award. At the City's option, the agreement may be renewed for four (4) additional twelve (12) month periods. The Contractor shall

submit the renewal proposal with price changes and justification to the Purchasing Department at least sixty (60) days before the expiration of the current agreement. Increase in contract pricing shall not exceed the consumer price index of the Dallas/Fort Worth standard metropolitan statistical for the previous twelve (12) month period or 5%, which ever is smaller. Renewal shall be at the sole discretion of the City of North Richland Hills department utilizing the contract.

Unless otherwise amended in writing and endorsed by both parties prior to the beginning of each respective renewal period, all terms and conditions of the Contract shall remain in full force and effect with the only change being in the Contract term.

Any **catalog, brand name or manufacturer's reference** used is considered to be descriptive not restrictive – and is indicative of the type and quality the City of North Richland Hills desires to purchase. Bids on similar items of like quality will be considered if the bid is noted and fully descriptive brochures are enclosed. If notation of substitution is not made, it is assumed vendor is bidding item specified. Successful vendor will not be allowed to make unauthorized substitutions after award.

Samples for testing may be required for evaluation. Samples will be free to the City of North Richland Hills. Failure to provide samples will be justification for bid rejection. City of North Richland Hills reserves the right to determine equals.

Samples must be the same product as that bid.

Entities Currently Participating in Cooperative Purchasing Program with City of North Richland Hills

City of Allen	City of Keller
City of Bedford	City of Lewisville
City of Cedar Hill	City of Live Oak
City of China Grove	City of Mercedes
City of Cleburne	City of Plano
City of College Station	City of Richardson
City of Colleyville	City of Rowlett
City of Copperas Cove	City of Southlake
City of Euless	City of Taylor
City of Forest Hill	City of Temple
City of Fort Worth	City of Weatherford
City of Frisco	City of Watauga
City of Garland	Birdville ISD
City of Grapevine	Mansfield ISD
City of Georgetown	Collin County
City of Grand Prairie	Harris County Department of Education
City of Haltom City	Johnson County ESD #1
City of Highland Village	Mansfield ISD
City of Hurst	Parker County Emergency Service District #1
City of Irving	Town of Addison

Anticipated Usage: City of North Richland Hills-Fire Department anticipates using the following estimated amounts for the purchase of Fire Fighting Clothes/Bunker Gear over a twelve (12) month period.

Other governmental entities have indicated that they desire to participate in City of North Richland Hill's bid for Fire Fighting Clothes/Bunker Gear. Other entities will have the option to join. Pricing on the Bid Proposal Forms should consider this additional usage and the potential usage from other governmental entities.

ENTITY	EXPECTED ANNUAL USAGE
City of North Richland Hills	\$ 25,000.00
City of Cedar Hill	\$ 34,200.00
City of Euless	\$ 39,900.00
City of Grapevine	\$ 57,000.00
City of Haltom	\$ 39,900.00
City of Hurst	\$ 28,500.00
City of Richardson	\$ 99,750.00
City of Richland Hills	\$ 14,250.00
City of Roanake	\$ 28,500.00
City of Westlake	\$ 14,250.00
City of Watauga	\$ 15,000.00
City of Trophy Club	\$ 14,250.00
Live Oak Fire Department	\$ 15,000.00
Town of Addison	\$ 34,015.00
Grand Total	\$ 459,515.00

Order Placement:

- A. Orders will be placed by telephone or email, requesting:
 - 1. Specific delivery dates and sites
 - 2. Purchase order number will be provided at that time.
- B. City of North Richland Hills contract information will be provided to the Successful vendor

SPECIFICATIONS BID # 15-017

The following description is intended to clarify the nature of the work required for purchase of Fire Fighting Clothes/Bunker Gear as the minimum requirements acceptable for the **Fire Fighting Clothes/Bunker Gear**. The provisions of these specifications shall apply except as otherwise noted herein.

SCOPE

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 will meet or exceed the most current NFPA Standard #1971 and OSHA for structural fire fighters protective clothing.

ADDITIONS AND/OR CHANGES TO THIS SPECIFICATION

Additional options, alterations, or changes to this specification - as requested by the North Richland Hills Fire Department or a department who is in a cooperative purchasing agreement with the City of North Richland Hills using this contract - may be ordered at a discount of 30-40% of manufacturer's published list price in effect at the time of order acceptance.

SIZING

In order to insure that every member of the department can safely perform to the maximum of their ability without extra bulk and without restriction, Jackets and Pants shall be available in all sizes and dimensions as follows:

Pants:

Gender: Gender specific Men's and Women's patterns

Waist: Even sizes

Body Shape: Relaxed and Regular (Note: Relaxed is a fuller cut in the hips and thighs, like relaxed jeans.)

Inseam: Even sizes

Jackets:

Gender: Gender specific Men's and Women's patterns will be available.

Chest: Even sizes

Back Length: Men's 29", 32", 35", 40"
Women's 26", 29"

Body Shape: Straight and Tapered (Note: The straight cut offers more fullness at the hips, i.e. jacket sweep, and is recommended when an IH Ready trouser is being Specified.)

Sleeve: 1" increments

Jackets and Pants available in only one standard shape will not be acceptable.

OUTER SHELL MATERIAL - JACKETS AND PANTS

The outer shell shall be constructed of TENCATE "MILLENNIA™ XT", a 60/40 Para-aramid/PBO blend with an approximate weight of 7.5 oz. per square yard in a ripstop weave. The shell material must be treated

with SST™ (SUPER SHELLTITE) which is a durable water-repellent finish that also enhances abrasion resistance. Color of the garments shall be gold. **Bids offering this shell material without the SST™ will not be considered.**

THERMAL INSULATING LINER - JACKET AND PANTS

The thermal liner shall be constructed of TENCATE "QUANTUM 3D®" SL2i™; a Kevlar filament and FR rayon/para-aramid/nylon, spun yarn Goldcheck™ face cloth quilted to one flat layer and one three dimensional layer of Nomex®/Kevlar® spunlace with a finished weight of approximately 7.7 oz. per square yard. A 7 inch by 9 inch pocket, constructed of self-material and lined with moisture barrier material, shall be affixed to the inside of the jacket thermal liner on the left side by means of a lock stitch. The thermal liner shall be attached to the moisture barrier and bound together by bias-cut neoprene coated cotton/polyester around the perimeter. This provides superior abrasion resistance to the less expensive, less durable, "stitch and turn" method. Further mention of "Thermal Liner" in this specification shall refer to this section.

MOISTURE BARRIER - JACKETS AND PANTS

The moisture barrier material shall be W.L. GORE CROSSTECH® 3-layer moisture barrier – Type 4A, which is comprised of a CROSSTECH® membrane laminated to a 3.3 ounce per square yard Nomex® IIIA woven pajama check substrate and a 1.8 ounce per square yard Nomex® woven fabric. The CROSSTECH® membrane is an enhanced bicomponent membrane comprised of an expanded PTFE (polytetrafluoroethylene, for example Teflon) matrix having a continuous hydrophilic (i.e. water loving) and oleophobic (i.e. oil hating) coating that is impregnated into the matrix. CROSSTECH® moisture barrier seams shall be sealed with GORE SEAM® tape using a Series 6000 (or higher) GORE SEAM™ sealing machine to afford comparable bacteriophage penetration resistance performance. The moisture barrier material shall meet all moisture barrier requirements of NFPA 1971 which directly includes water penetration resistance, viral penetration resistance, and common chemical penetration resistance and indirectly includes total heat loss (THL) and thermal protective performance (TPP). The moisture barrier shall be sewn to the thermal liner at the edges only and bound with bias-cut neoprene coated cotton/polyester binding. Further mention of "Specified Moisture Barrier" in this specification shall refer to this section.

SEALED MOISTURE BARRIER SEAMS

All moisture barrier seams shall be sealed with a minimum 1 inch wide sealing tape. One side of the tape shall be coated with a heat activated glue adhesive. The adhesive side of the tape shall be oriented toward the moisture barrier seam. 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.

METHOD OF THERMAL LINER/MOISTURE BARRIER ATTACHMENT FOR JACKETS AND PANTS

The thermal liner and moisture barrier shall be completely removable from the jacket shell. Two strips of 5/8 inch wide FR Velcro® fastener tape shall secure the thermal liner/moisture barrier to the outer shell along the length of the neck line under the collar (see Collar section). The remainder of the thermal liner/moisture barrier shall be secured with snap fasteners appropriately spaced on each jacket facing and Ara-Shield® snap fasteners at each sleeve end. One of the Ara-shield® snap tabs shall be a different color in the liner to correspond with color coded snap tabs for ease of matching the liner system to the outer shell after inspection or cleaning is completed.

The thermal liner and moisture barrier shall be completely removable from the pant shell. Nine snap fasteners shall be spaced along the waistband to secure the thermal liner to the shell. The legs of the thermal

liner/moisture barrier shall be secured to the shell by means of Ara-Shield® snap fasteners, 2 per leg. The Ara-shield® snap tabs shall be color coded to a corresponding snap tab in the liner for ease of matching the liner system to the outer shell after inspection or cleaning is completed.

THERMAL PROTECTIVE PERFORMANCE

The assembled garment, consisting of an outer shell, moisture barrier and thermal liner, shall exhibit a TPP (Thermal Protective Performance) rating of not less than 35.

STITCHING

The outer shell shall be assembled using stitch type #301, #401, #514 and #516. The thermal liners and moisture barriers shall be assembled using stitch type #301, #401, #504, #514, and #516. Stitching in all seams shall be continuous. Major A outer shell structural seams and major B structural liner seams, shall have a minimum of 8 to 10 stitches per inch. All major A seams shall be sewn with ball point needles only. All seams shall be continuously stitched only.

JACKET CONSTRUCTION

BODY

The body of the shell and AXTION® liner system shall be constructed of three separate panels consisting of two front panels and one back panel. 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. One-piece outer shells shall not be acceptable.

AXTION® BACK

The jackets shall include inverted pleats to afford enhanced mobility and freedom of movement in addition to that provided by the AXTION® sleeves. The outer shell shall have two inverted pleats (one each side) installed on either side of the back body panel. The inverted pleats shall begin at the top of each shoulder and extend vertically down the sides of the jacket to the hem. Maximum expansion of the pleats shall occur at the shoulder area and taper toward the hem.

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 AXTION® back pleats. It will be designed to expand with the outer shell pleats to provide maximum expansion.

The moisture barrier shall be designed with darts corresponding to the added length in the shell provided by the AXTION® back pleats. The darts are positioned at the shoulder blades of the moisture barrier, outside of the SCBA straps and work together with the outer shell and the thermal liner pleats in the AXTION® back providing maximum expansion. The moisture barrier darts will be seam sealed to assure liquid resistance integrity.

LOGOS

The garment brand shall be identified by means of red FR Nomex thread embroidery on the top of the right collar denoting "GLOBE" as the manufacturer. There shall be a reflective label specific to the garment style, measuring 1 inch wide by 4 inches long, installed on the left pocket flap.

DRAG RESCUE DEVICE (DRD)

A Firefighter Drag Rescue Device shall be installed in each jacket. The ends of a 1½ inch wide strap, constructed of black Kevlar® with a red Nomex® center stripe, will be sewn together to form a continuous loop. The strap will be installed in the jacket between the liner system and outer shell such that when properly installed will loop around each arm. The strap will be accessed through a portal between the shoulders on the upper back where it is secured in place by an FR strap. The DRD shall be removable for laundering. The access port will be covered by an outside flap of shell material, with beveled corners designed to fit between the shoulder straps of an SCBA. The flap will have a NFPA-compliant 3M Scotchlite™ reflective logo patch sewn to the outside to clearly identify the feature as the DRD (Drag Rescue Device). The DRD shall not extend beyond the outside flap. This device provides a quickly deployed means of rescuing a downed firefighter. Flimsy, rope-style DRD straps will not be considered.

SEPARATING LINER SYSTEM (JACKET)

The combined moisture barrier and the thermal liner shall be completely removable from the jacket. The thermal liner and moisture barrier layers of the AXTION® liner system shall be constructed in such a way as to allow the layers to separate for improved air flow, drying and interior service and replacement. The thermal liner and moisture barrier layers shall be stitched together at the sleeve cuff ends and hem of the rear body panels only. The leading edges and hem of the left and right front body panels of the thermal liner and moisture barrier layers shall fasten together with snap fasteners. The snap fasteners shall be evenly spaced along the opening edge of the layers and set in bias-cut reinforcement fabric. The neck area of the liner system shall attach up inside the outer shell collar with two strips of ½ inch wide FR Velcro® fastener tape on the front and rear of the collar. Loop fastener tape installed along the neck of the thermal liner will secure to hook fastener tape installed along the front inside edge of the top collar. Hook fastener tape installed along the neck of the moisture barrier layer of the liner system will extend upward into the underside of collar and attach to the loop fastener tape installed along the full length of the inside back layer of the collar. The outside perimeter of the AXTION® liner moisture barrier and thermal liner layers shall be bound with a bias-cut neoprene coated cotton/polyester binding for a finished appearance that prevents fraying and wicking of contaminants. Stitching used to secure the thermal liner and moisture barrier in place of the neoprene shall not be considered, since thread alone is not able to provide the same level of abrasion resistance.

RETROREFLECTIVE FLUORESCENT TRIM

The retroreflective fluorescent trim shall be lime/yellow 3M Scotchlite™ Triple Trim. Each jacket shall have an adequate amount of retroreflective fluorescent trim affixed to the outside of the outer shell to meet the requirements of NFPA 1971 and OSHA. The trim shall be in the following widths and shall be NFPA Vertical style; 3 inch wide stripes - around the bottom of the jacket within approximately 1 inch of the hem, horizontally across the chest area approximately 3 inches below the armpit, two vertical stripes on the back (one on each side) beginning at the top of the bottom band of trim and extending up to approximately 7½ inches below the neck seam, around each sleeve below the elbow.

REINFORCED TRIM STITCHING

All reflective trim is secured to the outer shell with Nomex® thread, using a locking chainstitch protected by our exclusive TrimTrax® system. Developed exclusively by Globe Manufacturing Co., LLC, this strip of 3/32-inch strong, durable, flame resistant black Kevlar® cording provides a bed for the stitching along each edge of the retroreflective fluorescent trim surface and affords extra protection for the thread from abrasion. TrimTrax® has been proven to be 5 to 7 times more durable than single or even double rows of stitching, significantly reducing maintenance costs and providing more value and a longer service life. Two rows of stitching used to attach the trim in place of the TrimTrax® shall be considered an unacceptable alternative,

since it has been proven that the two rows of stitching has insignificant impact on wear life. All trim ends shall be securely sewn into a seam for a clean finished appearance.

SEWN ON RETROREFLECTIVE LETTERING

Each jacket shall have 3" lime/yellow 3M Scotchlite™ lettering on Row A reading: NRHFD

Each jacket shall have 3" lime/yellow 3M Scotchlite™ lettering on a hanging letter patch reading: FF NAME

HANGING LETTER PATCH

The hanging letter patch shall be constructed of a double layer of outer shell material. The letter patch will attach to the rear inside hem of the jacket with a combination of snap fasteners and FR Velcro® hook & loop fastener tape.

COLLAR & FREE HANGING THROAT TAB

The collar shall consist of a four-layer construction and be of two-piece design. The collar shall have a minimum of 3 rows of quilting. The outer layers shall consist of outer shell material, with a minimum of two-layers of specified moisture barrier sandwiched in between (see Moisture Barrier section). The rear inside ply of moisture barrier shall be sewn to the collar's back layer of outer shell at the edges only. The forward inside ply of moisture barrier shall be sewn to the inside of the collar at the edges only. The multi-layered configuration shall provide protection from water and other hazardous elements. The collar shall be of two piece design with the left and right halves of all component materials joined in the center by stitching, thereby permitting the collar to retain its proper shape and roll. The collar shall be minimum 3½ inches high and graded to size. 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. The collar's back layers of outer shell and moisture barrier shall be joined to the body panels with two rows of stitching. Inside the collar, above the rear seam where it is joined to the shell shall be a strip of ⅝ inch wide FR Velcro® hook fastener tape running the full length of the collar. The collar's front layers of moisture barrier and outer shell shall have an additional strip of ⅝ inch wide hook fastener tape stitched to the inside lower edge and running the full length of the collar. These two inside strips of ⅝ inch wide FR Velcro® hook fastener tape sewn to the underside of the collar shall engage corresponding pieces of FR Velcro® loop fastener tape at the front and back neck area of the liner system.

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. The throat tab shall measure not less than 3 inches wide at the center tapering to 2 inches at each end with a total length of approximately 9 inches. The throat tab will be attached to the right side of the collar by a 1 inch wide by 1 inch long piece of Nomex® twill webbing. The throat tab shall be secured in the closed and stowed position with FR Velcro® hook and loop fastener tape. The FR Velcro® hook and loop fastener tape shall be oriented to prevent exposure to the environment when the throat tab is in the closed position. Two 1½ inch by 3 inch pieces of FR Velcro® loop fastener tape shall be sewn vertically to the inside of each end of the throat tab. Corresponding pieces of FR Velcro® hook fastener tape measuring 1 inch by 3 inches 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. In order to provide a means of storage for the throat tab when not in use, a 1 inch by 3 inch piece of FR Velcro® hook fastener tape shall be sewn horizontally to the inside of the throat tab immediately under the 1½ inch by 3 inch pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half for storage with the FR Velcro® loop fastener tape engaging the FR Velcro® hook fastener tape.

A hanger loop constructed of a double layer of outer shell material shall be sewn to the top of the collar at the center.

JACKET FRONT

The jacket shall incorporate separate facings to ensure there is no interruption in thermal or moisture protection in the front closure area. The facings shall measure approximately 3 inches wide, extend from collar to hem, and be double stitched to the underside of the outer shell at the leading edges of the front body panels. 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. The breathable film side shall face inward to protect it. There shall be wicking barrier constructed of Crosstech 2F moisture barrier material installed on the front closure system on the left and right side directly below the front facings to ensure continuous protection and overlap. The wicking barrier shall extend no more than a maximum of ¾" beyond the inner facing and false facing shall be unacceptable. The thermal liner and moisture barrier assembly shall be attached to the jacket facings by means of snap fasteners.

STORM FLAP

A rectangular storm flap measuring approximately 3 inches wide and a minimum of 23 inches long (based on a 32" 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. The outside storm flap shall be constructed of two plies of outer shell material with a center ply of breathable moisture barrier material. 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.

STORM FLAP AND JACKET FRONT CLOSURE SYSTEM

The jacket shall be closed by means of a 22 inch size #10 heavy duty high-temp smooth-gliding YKK Vislon® zipper on the jacket fronts and FR Velcro® fastener tape on the storm flap. The teeth of the zipper shall be mounted on black Nomex® tape and shall be sewn into the respective jacket facings. The storm flap shall close over the left and right jacket body panels and shall be secured with FR Velcro® fastener tape. A 1½ inch piece of FR Velcro® loop fastener tape shall be installed along the leading edge of the storm flap on the underside with four rows of stitching. A corresponding 1½ inch piece of FR Velcro® hook fastener tape shall be sewn with 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.

CARGO/HANDWARMER EXPANSION (BELLOWS) POCKETS

Each jacket front body panel shall have a 2 inch deep by 8 inch wide by 8 inch high expansion pocket, 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. Retroreflective trim shall run over the bottom of the pockets so as not to interrupt the trim stripe. Two rust resistant metal drain eyelets shall be installed in the bottom of each expansion pocket to facilitate drainage of water. The expansion pocket shall be reinforced with a layer of Kevlar® approximately 5 inches up on the inside of the pocket. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material and shall measure 3 inches deeper than the pocket expansion and ½ inch wider than the pocket. The upper pocket corners shall be reinforced with proven backtacks and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of FR Velcro® fastener tape. Two pieces of 1½ inch by 3 inch FR Velcro® hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of 1½ inch by 3 inch FR Velcro® loop fastener tape 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.

Additionally, a separate hand warmer pocket compartment will be provided under the expandable cargo pocket. This compartment will be accessed from the rear of the pocket and shall be lined with Nomex® Fleece for warmth and comfort. Shell material linings shall not be considered acceptable.

AXTION® SLEEVES

The sleeves shall be of two piece construction and contoured, having an upper and a lower sleeve. Both the under and upper sleeve shall be graded in proportion to the chest size. For unrestricted movement, on the underside of each sleeve there shall be two outward facing pleats located on the front and back portion of the sleeve on the shell and thermal liner. On the moisture barrier, the system will consist of two darts, rather than pleats, to allow added length in the under sleeve. The moisture barrier darts will be seam sealed to assure liquid resistance integrity.

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 jacket rise. Neither stove-pipe nor raglan-style sleeve designs will be considered acceptable.

SLEEVE CUFF REINFORCEMENTS

The sleeve cuffs shall be reinforced with a layer of black Dragonhide® material. The cuff reinforcements shall not be less than 2 inch in width and folded in half, approximately one half inside and one half outside the sleeve end for greater strength and abrasion resistance. The cuff reinforcement shall be double stitched to the sleeve end; a single row of stitching shall be considered unacceptable. This independent cuff provides an additional layer of protection as compared to a turned and stitched cuff. Jackets finished with a turned and stitched cuff do not provide the same level of abrasion resistance and will be considered unacceptable.

WRISTLETS / ELASTICIZED ADJUSTABLE SLEEVE WELLS

Each jacket shall be equipped with Nomex® hand and wrist guards not less than 7 inches in length and of double thickness. A separate thumbhole with an approximate diameter of 2 inches shall be recessed approximately 1 inch from the leading edge. Nomex® knit is constructed of 96% Nomex® and 4% Spandex for shape retention. The color of the wristlets shall be white. The wristlets shall be sewn to the end of the liner sleeves. Flame resistant neoprene coated cotton/polyester impermeable barrier material shall be sewn to the inside of the sleeve shell approximately 5 inches from the sleeve end and extending toward the cuff forming the sleeve well. The neoprene sleeve well shall form an elasticized cuff end with an FR Velcro® tab providing a snug fit at the wrist and covering the knit wristlet. This sleeve well configuration serves to prevent water and other hazardous elements from entering the sleeves when the arms are raised. The neoprene barrier material shall also line the inside of the sleeve shell from the cuff to a point approximately 5 inches back, where it joins the sleeve well and is double stitched to the shell. Four Ara-shield® snap tabs will be sewn into the juncture of the sleeve well and wristlet. The tabs will be spaced equidistant from each other and shall be fitted with female snap fasteners to accommodate corresponding male snaps in the liner sleeves. One of the Ara-shield® snap tabs shall be a different color in the liner to correspond with color coded snap tabs for ease of matching the liner system to the outer shell after inspection or cleaning is completed. This configuration will ensure there is no interruption in protection between the sleeve liner and wristlet.

LINER ELBOW THERMAL ENHANCEMENT

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 in this high compression area. 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. Finished dimension shall be approximately 5 inches by 8 inches. All edges shall be finished by means of overedging. Raw or unfinished edges shall be considered unacceptable. Thermal scraps shall not be substituted for full-cut fabric padding.

LINER SHOULDER AND UPPER BACK THERMAL ENHANCEMENT

A minimum of one 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. This full-cut 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 inches from the juncture of the collar down the back to a depth of 7 inches to provide greater CCHR protection in this high compression area. 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. The thermal enhancement layer shall have finished edges by means of overedging. Raw or unfinished edges shall be considered unacceptable. Thermal scraps shall not be substituted for full-cut fabric padding. Smaller CCHR reinforcements shall not be considered acceptable since they provide far less area of coverage.

RADIO POCKET

Each jacket shall have a pocket designed for the storage of a portable radio. This pocket shall be of box type construction, double stitched to the jacket and shall have one drainage eyelet in the bottom of the pocket. The pocket flap shall be constructed of two layers of outer shell material measuring approximately 5 inches deep and ¼ inch wider than the pocket. The pocket flap shall be closed by means of FR Velcro® fastener tape. A 1½ inch by 3 inch piece of FR Velcro® hook fastener tape shall be installed on the inside of the pocket flap beginning at the center of the bottom of the flap. A 1½ inch by 3 inch piece of FR Velcro® loop fastener tape shall be installed horizontally on the outside of the pocket near the top center and positioned to engage the hook fastener tape. In addition, the entire inside of the pocket shall be lined with neoprene coated cotton/polyester impermeable barrier material to ensure that the radio is protected from the elements. The impermeable barrier material shall also be sandwiched between the two layers of outer shell material in the pocket flap for added protection. The radio pocket shall measure approximately 3 inches deep by 3.5 inches wide by 9 inches high and shall be installed on the left chest.

MICROPHONE STRAP

A strap shall be constructed to hold a microphone for a portable radio. It shall be sewn to the jacket at the ends only. The size of the microphone strap shall be 1 inch x 3 inches. The microphone strap shall be mounted above the radio pocket and shall be constructed of double layer outer shell material.

SURVIVOR FLASHLIGHT HOLDER

Each jacket shall be equipped with a "Survivor" flashlight holder. An inward facing metal safety coat hook shall be triple riveted in a vertical position to the upper chest. The inward facing coat hook will accommodate the clip portion of the flashlight. Below the coat hook will be a strap constructed of outer shell material measuring approximately 2½ inches high and 9 inches wide, and will hold the barrel of the flashlight. The lower strap will be equipped with a 1½ inch by 2½ inch FR Velcro® closure at the front of the strap to facilitate easy removal of the flashlight. There shall be approximately 3 inches between the upper coat hook and lower strap. The "Survivor" flashlight holder shall be sewn to the jacket on the right chest.

PANT CONSTRUCTION

BODY

The body of the shell shall be constructed of four separate body panels consisting of two front panels and two back panels. 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. The body panels and seam lengths shall be graded to size to assure accurate fit in a broad range of sizes.

The front body panels will be wider than the rear body panels to provide more fullness over the knee area. This is accomplished by rolling the side leg seams (inside and outside) to the rear of the pant leg beginning at the knee. The slight taper will 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.

AXTION® SEAT

The rise of the rear pant 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 pant by 8 inches. The longer rear center back seam provides added fullness to the seat area for extreme mobility without restriction when stepping up or crouching and will be graded to size. This feature in combination with other design elements will maintain alignment of the knee directly over the knee pads when kneeling and crawling.

SEPARATING LINER SYSTEM (PANT)

The thermal liner and moisture barrier layers shall fasten together at the waist with snap fasteners and at the cuffs with full circumference FR Velcro® hook & loop fastener tape and two snap fasteners. The snap fasteners shall be evenly spaced along the openings and set in bias-cut neoprene reinforcement fabric. The waist and cuff perimeters of the moisture barrier and thermal liner layers shall be bound along the edges with a neoprene coated cotton/polyester binding for a finished appearance that prevents wicking of contaminants.

RETROREFLECTIVE FLUORESCENT TRIM

The pants shall have a stripe of retroreflective fluorescent trim encircling each leg below the knee to comply with the requirements of NFPA #1971 in 3 inch lime/yellow 3M Scotchlite™ Triple Trim. Bottom of trim band shall be located approximately 3" above cuff.

REINFORCED TRIM STITCHING

All reflective trim is secured to the outer shell with Nomex® thread, using a locking chainstitch protected by our exclusive TrimTrax® system. Developed exclusively by Globe Manufacturing Co., LLC. this strip of 3/32-inch strong, durable, flame resistant black Kevlar® cording provides a bed for the stitching along each edge of the retroreflective fluorescent trim surface and affords extra protection for the thread from abrasion. TrimTrax® has been proven to be 5 to 7 times more durable than single or even double rows of stitching, significantly reducing maintenance costs and providing more value and a longer service life. Two rows of stitching used to attach the trim in place of the TrimTrax® shall be considered an unacceptable alternative, since it has been proven that the two rows of stitching has insignificant impact on wear life. All trim ends shall be securely sewn into a seam for a clean finished appearance.

ELASTICIZED WAISTBAND

The pant design facilitates the transfer of the weight of the pant to the hips instead of the shoulders and suspenders. The two rear outer-shell body panels, beginning at the pant side seams, shall incorporate an elasticized waistband. The rear elasticized waistband shall be integral to the shell of the pant and the elasticized portion shall be covered in an aramid fabric.

The waist area of the pants shall incorporate an independent stretch waistband on the inside with a separate piece of black aramid outer shell material cut on the bias (diagonally) measuring not less than 2 inches in width. Neoprene coated cotton/polyester shall be sewn to the back of the waistband as a reinforcement to create a three-layer protection. The top edge of the waistband reinforcement shall be double stitched to the outer shell at the top of the pants. The lower edge of the waistband shall be serged and unattached to the shell to accept the thermal liner and moisture barrier. The top of the thermal liner and moisture barrier shall be secured to the underside of the waistband reinforcement so as to be sandwiched between the waistband reinforcement and outer shell to reduce the possibility of liner detachment while donning and to avoid pass through of snaps from the outer shell to the inner liner. The independent waistband construction affords greater comfort and fit than a turned and stitched method. Pants that do not include an independent waistband only serve to save the manufacturer both money and labor and shall be considered unacceptable.

EXTERNAL / INTERNAL FLY FLAP

The pants will have a vertical outside fly flap constructed of two layers of outer shell material, with a layer of moisture barrier material sandwiched between. The fly flap shall be double stitched to the left front body panel and shall measure approximately 2 ½ inches wide, with a length graded to size based on waist measurement and reinforced with bartacks at the base. 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, shall be sewn to the leading edge of the right front body panel. The inside of the right front body panel shall be thermally enhanced directly under the outside fly with a layer of moisture barrier and thermal liner material.

The underside of the outside fly flap shall have a 1½ inch wide piece of FR Velcro® 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 1½ inch wide piece of FR Velcro® hook fastener tape shall be quadruple stitched to the outside right front body panel securing the fly in a closed position.

Appropriate snap fastener halves shall be installed at the leading edge of the waistband for the purpose of further securing the pants in the closed position.

BELT

Each pant shall include a 2 inch wide black aramid belt with an adjustable hi-temp thermoplastic buckle serving as the exterior primary positive locking closure. Sizing adjustments shall be provided by a self locking 2 inch thermoplastic buckle; this buckle shall also provide a quick-release mechanism for donning and doffing. The belt shall be attached to the two front body panels of the pant beginning at the side seams. The belt shall run through tunnels constructed of black 7½ oz. aramid outer shell material protecting it from damage. The tunnels will begin at the side seams and terminate at the front of the pant exposing the buckle. A single belt loop constructed of a double layer of black 7½ oz. aramid measuring approximately ½ inch by 3 inches shall be attached to the topside of the right side tunnel. The belt loop will be located approximately 2 inches from the tunnel opening for storage of the belt tab.

AXTION® KNEE

The outer shell of the pant 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. The pleats shall be folded to open outwardly towards the side seams to insure no

restriction of movement. The AXTION® knee will be installed proportionate to the pant inseam, in such a manner that it falls in an anatomically correct knee location.

The thermal liner shall be constructed with four pleats per leg in the front of the knee. Two will be located above the knee (one on each side) and two will be located below the knee (one on each side). On the moisture barrier, the system will consist of two darts, rather than pleats, to allow added length in the under knee. The darts in the liner provide a natural bend at the knee. The pleats and darts in the liner work in conjunction with the expansion panels in the outer shell to increase freedom of movement when kneeling, crawling, climbing stairs or ladders, etc.

LINER KNEE THERMAL ENHANCEMENT

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, will be sewn to the knee area of the liner system for added CCHR protection and increased thermal insulation in this high compression area. 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. The thermal enhancement layer shall have finished edges by means of over edging. Raw or unfinished edges shall be considered unacceptable. Thermal scraps shall not be substituted for full-cut fabric padding. Smaller CCHR reinforcements shall not be considered acceptable since they provide far less area of coverage.

KNEE REINFORCEMENTS

The knee area shall be reinforced with a layer of black Dragonhide® material. The knee reinforcement shall be centered on the leg to insure proper coverage when bending, kneeling and crawling. The knee reinforcements shall measure 9 inches wide by 12 inches high and shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance. The knee reinforcement specified shall be removable without opening up any seams of the outer shell of the pant. Knee reinforcements of a smaller size do not provide the same protective coverage and shall be considered unacceptable.

PADDING UNDER KNEE REINFORCEMENTS

Padding for the knees shall be accomplished with one layer of Silizone® foam sewn to the liner, sandwiched between the thermal liner and moisture barrier.

EXPANSION (BELLOWS) POCKETS

An expansion pocket, measuring approximately 2 inches deep by 10 inches wide by 10 inches high shall be double stitched to the side of each leg straddling the outseam above the knee and positioned to provide accessibility. The lower half of each expansion pocket shall be reinforced with an additional layer of Kevlar® twill material on the inside. Two rust resistant metal drain eyelets shall be installed on the underside of each expansion pocket to facilitate drainage of water. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material and shall measure 3 inches deeper than the pocket expansion and ½ inch wider than the pocket. The upper pocket corners shall be reinforced with proven bartacks and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of FR Velcro® fastener tape. Two pieces of 1½ inch by 3 inch FR Velcro® hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of 1½ inch by 3 inch FR Velcro® loop fastener tape 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.

6 PACK TOOL COMPARTMENT

A tool pocket constructed of Kevlar® material and measuring approximately 8 inches high by 10 inches wide will be installed on the inside of both pant expansion pockets with double stitching. The front pockets will measure 6 inches high. Two separate rows of stitching will divide the tool pocket into six compartments, three in front (6 inches high) and three in back (8 inches high), measuring approximately 3 inches wide and set side-by-side.

PANT CUFF REINFORCEMENTS

The cuff area of the pants shall be reinforced with a layer of black Dragonhide® material. The cuff reinforcement shall not be less than 2 inch 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. The cuff reinforcement shall be double stitched to the outer shell for a minimum of two rows of stitching. This independent cuff provides an additional layer of protection over a hemmed cuff. Pants that are turned and stitched at the cuff, as opposed to an independent cuff reinforcement, do not provide the same level of abrasion resistance and shall be considered unacceptable.

PADDED RIP-CORD SUSPENDERS & ATTACHMENT

On the inside waistband shall be attachments for the standard "H" style "Padded Rip-Cord" suspenders. There will be four attachments total – 2 front, 2 back. The suspender attachments shall be constructed of a double layer of black aramid measuring approximately ½ inch wide by 3-inches long. They shall be sewn in a horizontal position on the ends only to form a loop. The appearance will be much like a horizontal belt loop to capture the suspender ends.

A pair of "H" style "Padded Rip-Cord" suspenders shall be specially configured for use with the pants. The main body of the suspenders shall be constructed of 2 inch wide black webbing straps. 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 inch wide horizontal piece of webbing measuring approximately 8-inches long, forming the "H". This shall prevent the suspenders from slipping off the shoulders. The shoulder area of the suspenders will be padded for comfort by fully encasing the webbing with aramid batting and wrap-around black aramid.

The rear ends of the suspenders will be sewn to 2-inch wide elasticized webbing extensions measuring approximately 8-inches in length and terminating with thermoplastic loops. The forward ends of the suspender straps shall be equipped with specially configured black powder coat non-slip metal slides with teeth. Through the metal slides will be the 9 inch lengths of strap webbing "Rip-Cords" terminating with thermoplastic loops on each end. Pulling on the "Rip-Cords" shall allow for quick adjustment of the suspenders.

Threaded through and attached to the thermoplastic loops on the forward and rear ends of the suspenders will be black aramid suspender attachments incorporating two snap fasteners. The aramid suspender attachments are to be threaded through the suspender attachment loops on the inside waistband of the pants. The aramid suspender attachments will then fold over and attach to themselves securing the suspender to the pants.

REVERSE BOOT CUT

The outer shell pant leg cuffs will be constructed such that the back of the leg is approximately 1 inch shorter than the front. The liner will 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. This construction feature will minimize the chance of premature wear of the cuffs and injuries due to falls as a result of "walking" on the pant cuffs.

Pants that have "cut-outs" in the back panel rather than a contoured boot cut shall be considered unacceptable.

THIRD PARTY TESTING AND LISTING PROGRAM

All components used in the construction of these garments shall be tested for compliance to NFPA Standard #1971 by Underwriters Laboratories (UL). Underwriters Laboratories shall certify and list compliance to that standard. Such certification shall be denoted by the Underwriters Laboratories certification label.

LABELS

Appropriate warning label(s) shall be permanently affixed to each garment. Additionally, the label(s) shall include the following information.

Compliance to NFPA Standard #1971
Underwriters Laboratories classified mark
Manufacturer's name
Manufacturer's address
Manufacturer's garment identification number
Date of manufacture
Size

ISO CERTIFICATION / REGISTRATION

The protective clothing manufacturer shall be certified and registered to ISO Standard 9001 to assure a satisfactory level of quality. Indicate below whether the manufacturer is so certified and registered by checking either "Yes" or "No" in the space provided.

BETTER BUSINESS BUREAU:

The manufacturer is accredited by the Better Business Bureau, showing a commitment to ethical and principled business practices.

WARRANTY:

The manufacturer shall warrant all items provided to be free from defects in materials and workmanship for their serviceable life when properly used and cared for. Manufacturer shall provide specific warranty details for all components associated with this contract.

HOOK AND LOOP SUPPORT PROGRAM

Support program shall cover hook or loop tape that has begun to fray or otherwise degrade from normal wear. This program shall remain in effect for a period of five years from the original date of manufacture of the garment. This support program shall 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.

This support program does NOT cover damage from fire, heat, chemicals, misuse, accident or negligence. Failure to properly care for garments will serve to void this support program.

SIZING BY VENDOR:

Both male and female sizing samples shall be available.

Both male and female sizing samples shall be on hand for use when sizing. The vendor shall be available to perform all sizing requirements within 96 hours of written notice. Measuring with a tape measure is not acceptable.

GARMENT TRAINING AND SUPPORT

OSHA requires employees be trained on the capabilities and limitations of their Personal Protective Equipment. The selected vendor shall provide the following:

On-site care and maintenance training shall be provided by the manufacturer. Training shall be in compliance with NFPA 1851, current edition, at the conclusion of which each participant shall receive a certificate of completion.

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 boots.

☒ Comply ☐ Exception

BAR-CODE/RECORD KEEPING INTERFACE

A 1 dimensional barcode, in the interleaved 2 of 5 format shall be printed on the label of each separable layer of the garment.

This 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:

- Brand
- Order Number
- Serial Number
- Style Number
- Color
- Description
- Chest/Waist Size
- Jacket/pant Length
- Sleeve Length
- Date of Manufacture
- Mark-For Data

This information shall be able to be imported into the manufacturers web-based system designed to facilitate the organization and tracking of assets in accordance with the cleaning and inspection requirements of OSHA and NFPA 1851.

PPE RECORD KEEPING

The manufacturer shall make available and no-charge, a password protected data based backed website that does not care whose brand of PPE assets are being recorded. The website shall have the functionality to allow the manufacturer to import all of the pertinent data into the department's account so that the initial data entry by fire department personnel is eliminated.

The website shall allow for the department to use a barcode scanner, if desired, to scan the Interleaved 2 of 5 barcode found in the gear by going to the Search the Serial Number page in PPE record keeping program, and scanning the asset's barcoded serial number.

EXCEPTIONS TO SPECIFICATIONS

Any and all exceptions to the above specifications must be clearly stated for each heading. Use additional pages for exceptions, if necessary.

COUNTRY OF ORIGIN

Jackets and Pants shall be manufactured in the United States. **NO EXCEPTION**

HELMETS

CAIRNS 1044™ and 1010™ Helmets, 1971-2013 REVISION

PURPOSE:

To supply a product specification for a structural firefighter's helmet with a fiberglass composite shell and multiple types of eye protection.

SCOPE:

The scope of this product specification encompasses design, construction, materials and performance criteria deemed necessary for helmets utilized in structural firefighting.

GENERAL:

Helmets manufactured in accordance with this specification are designed to meet the requirements of 2013 edition of the NFPA 1971 standard.

NO EXCEPTIONS, DEVIATIONS OR DELETIONS TO THIS SPECIFICATION WILL BE ACCEPTED.

MANUFACTURER'S WARRANTY:

Cairns products and/or components furnished under this order carry a Lifetime Warranty against material defects and/or faulty workmanship, with the exception of the helmet shell, which carries a 5-year shell replacement warranty. MSA shall be released from all obligations under this warranty in the event repairs or modifications are made by persons other than its own or authorized service personnel or if the warranty

claim results from abuse, misuse, or normal wear and tear of the product. 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. Refer to the official warranty policy #3600-09 for details.

HELMET SHELL:

The Cairns 1044 and 1010 shall have a Traditional American Fire Service Style helmet shell, comprising a crown, with four (4) major ribs (front, back, left and right sides), and four minor ribs equidistant between each major rib, and a brim that has a short front visor continuing around the sides to a large rear brim area. The upper surface of the brim shall have the traditional fire service vine scroll-work molded into the surface of the composite. The underside of the brim shall have drill guides for the various eyes and face protection that can be attached to the helmet shell.

The helmet shell material is a DuraGlas® composite consisting of a high-temperature-, flame-, and chip-resistant, "through-colored" thermoset resin, reinforced with 1" and 2" chopped fiberglass, which is compression molded to form a one piece shell.

Cairns 1044 Helmet Colors

The shell shall be available in white, red, black and yellow with a unpainted, matte finish.

Cairns 1010 Helmet Colors

The exterior of the shell shall be completely coated with a color pigmented, high gloss, abrasion, high heat and chemical resistant paint finish. The shell color and matched paint finish shall be available in the standard colors of white, red, black, and yellow. Orange and blue painted finishes shall be available over a white composite shell substrate.

The shell dimensions (with edge-trim) shall be 15.5" in length, 11.88" in width and a crown depth of 6.5". The shell shall have a nominal wall thickness of 0.065" in the crown and 0.080" in the brim.

The helmet shell shall be furnished with a formed brass front-piece holder which shall be attached to the shells front main rib, and positioned to support the top of a standard 6" fire department identification shield. The options of either a brass carved eagle, silk-screened brass eagle, a brass silk-screened maltese cross, brass carved dragon or a brass carved beaver are available, and all fronts shall incorporate a "crumple-zone" design to absorb impacts.

The shell shall have a thermoplastic, front-piece mounting bracket affixed to the center of the front visor of the brim. The bracket shall provide for positioning and retention of a standard 6" fire department identification shield.

The shell shall have black, or white*, high-temperature, flame-resistant, flexible edge trim composed of an aluminum-cored, thermoplastic rubber (TPR). The edge-trim is 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.

* Available on white helmet shells only.

The shell shall have a helmet hanger comprised of a 3/4" nickel-plated "D" ring and a stainless steel clip. The helmet hanger shall be attached to the center rear of the brim.

IMPACT LINER:

The Cairns 1044 and 1010 shall include an impact liner, which is comprised of rigid cell, high temperature urethane foam cap attached to a flame-resistant thermoplastic PPO inner liner. The impact liner shall be modular and field removable for periodic inspection of the foam's integrity. The impact liner is incorporated to provide increased thermal and impact protection.

HEAD SUSPENSION:

The Cairns 1044 and 1010 shall consist of a 6-way head suspension system, attached to the impact cap. The head suspension system is comprised of three (3) fixed 0.75" wide nylon straps mounted at six points on the impact liner and fastened at their intersection to form the 6-way overhead strap assembly. The straps are attached to the impact cap by means of a tubular plastic ring, joined at the ends by an elastomeric tube that locks the straps into a routed annular groove in the impact cap.

SIZING ADJUSTMENT:

The size of the headband may be adjusted 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 head band is attached to the sides of the impact cap liner by four (4) flexible retention tabs. The rear ratchet arms shall have three (3) adjustable positions so that the angle of the ratchet may be set to accommodate the nape of the wearer's head. The headband height shall be adjustable at the front of the helmet via a hook and look system to provide additional comfort to the wearer.

COMFORT LINER:

The Cairns 1044 and 1010 shall have a comfort liner, which consists of a headband cushion liner and a ratchet pad, which are both removable. Both components are produced from a foam core laminate system, which is comprised of a soft black flame resistant flannel material against the users head and backed by a soft loop material which will be secured to the headband and the ratchet with hook fastener. The comfort liner is machine washable and can be easily upgraded to a leather-lined deluxe version.

CHINSTRAP:

The chinstrap shall be constructed of three (3) pieces (or sections) of 3/4" wide, spun-Nomex webbing, which are connected on the left side of the helmet by a high-temperature, super-tough, thermoplastic quick release buckle, and by a cast zinc postman's slide buckle on the right hand side of the helmet.

The chinstrap is attached at either end of the impact cap by means of a plastic zip tie that locks the chinstrap into a routed annular groove in the impact cap. The long, middle-section, with the female half of the quick release buckle sewn to the left end, shall pass through the postman's slide buckle on the right, and include hook and loop fastener for stowage of extra strap. The middle section shall be a minimum of 23.0" in length and the total length of the chinstrap shall be 35.0" at full extension, end to end.

SHELL RELEASE PROVISIONS:

The impact liner, complete with suspension system and chinstrap assembly (as described above) shall be retained to the helmet shell by means of two (2) thermoplastic retention clips mounted under the faceshield pivot hardware, and by four (4) pieces of hook and pile fastener sections between the impact liner and helmet shell in the crown area. This design will 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 leaves the impact cap on the wearer's head for continued thermal and impact protection.

EAR/NECK PROTECTION:

The Cairns 1044 and 1010 provide for ear and neck protection with a 6.5" wide, 19.0" long, full-cut earlap. The earlap consists of a 4.5 oz. / yd., yellow or black colored Nomex[®] outer-shell, and a flame resistant black flannel inner-liner. The earlap shall be secured to the impact liner by pieces of hook and pile fastener in no less than five (5) locations. The earlap is machine washable and can be easily upgraded to a PBI/Kevlar 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.

EYE/FACE PROTECTION OPTIONS:

Defender[®] Visor

The helmet shall have an integral visor system that retracts between the helmet shell and impact cap. The visor system shall be a wrap-around design, 4.5" high and 8.25" long. The lens shall be optically corrected to eliminate distortion. The lens of the visor system shall be available in clear or Tuffshield (yellow tinted) standard colors. Optional Tinted (Gray Smoked) and Mirrored finish lenses shall also be available. The lens shall be able to be replaced in less than 15 seconds without the use of tools.

FACESHIELD

The faceshield shall be a wrap-around, high pivot design, 4.5" wide, 18.0" long and 0.150" thick. The lens material shall be high performance, high temperature resistant thermoplastic. The lens shall be coated with a scratch resistant coating on both inner and outer surfaces to protect the lens from abrasions.

The faceshield shall be mounted to the helmet shell by means of two (2) glass-reinforced, high-temperature and flame-resistant thermoplastic bracket assemblies, with adjustable thermoplastic knobs one (1) on either side of the helmet shell. The brackets allow the faceshield to pivot above the helmet shell when it is not in use.

GOGGLE SYSTEM

The goggle system shall be comprised of a high-temperature, flame- and impact-resistant goggle lens and frame, a flame-resistant, elastic goggle strap, and a goggle retention system. This retention system will lock the goggle onto the helmet at the back brim, which will prevent loss of the goggle when it is stowed or in the donned position. The goggle can also be attached to the helmet with side mounted hardware. This will allow the goggle to be stored in the front or back position of the helmet. The straps can be attached to the side hardware by means of lock down nuts through the straps or by a quick release fastener. Both inner and outer surfaces of the goggle lens will have an anti-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 with a nominal thickness of 1/16". The goggle strap will require a onetime adjustment which facilitates donning while wearing gloves.

BOURKE EYE SHIELD

The Bourke is for cosmetic purposes only. It provides no eye or face protection and is not NFPA 1971 compliant. The Bourke is comprised of dual (2), 2.85 wide x 5.15" long x 0.115" thick, transparent polycarbonate lenses that pivot up and down at 90° simultaneously and are low-profile against the underside of the front brim when the lenses are flipped up. The inner edges of both lenses are designed to connect when the lenses are flipped down. The lenses are fastened to a single key and cable (spring) system that allows the two (2) lenses to move simultaneously. The entire assembly is mounted to a brass plate, which is fastened to the center of the front brim of the helmet shell.

RETRO-REFLECTIVE TRIM

The helmet shall have eight tetrahedron shaped pieces of retro-reflective, fluorescent Reflexite® trim around the exterior of the crown of the helmet shell for maximum daytime and nighttime visibility. Scotchlite® tetrahedrons must also be available.

PROXIMITY FIREFIGHTING HELMET OPTION

The Cairns 1044 and 1010 shall be made available with optional components to enable the helmet to be used as a proximity firefighting helmet. The necessary component shall include a proximity bonnet, a proximity shroud, and faceshield. Use of these components shall enable the Cairns 1044 and 1010 to be compliant with the proximity firefighting helmet requirements of NFPA 1971-2013.

PROXIMITY BONNET

The proximity bonnet shall be custom made to specifically fit over the Cairns 1044 helmet. The proximity bonnet shall consist of an outer aluminized PBI/Kevlar layer, and an inner moisture barrier and thermal liner. The proximity bonnet, when attached to the helmet, shall allow a faceshield to be attached to the helmet over the proximity bonnet.

PROXIMITY SHROUD

The proximity shroud shall be custom made to interface specifically with the proximity bonnet. The proximity shroud shall consist of an outer aluminized PBI/Kevlar layer, and an inner moisture barrier and thermal liner. The proximity shroud, when used in conjunction with the proximity bonnet, shall provide continuous radiant reflective protection for the head, face, and neck areas that do not receive primary protection from the helmet or faceshield.

FACESHIELD

The faceshield shall be a gold-coated 6" faceshield. The faceshield shall provide radiant reflective protection to the head, face, and neck areas that do not receive primary protection from the helmet or proximity bonnet or proximity shroud.

PERFORMANCE CRITERIA:

The Cairns 1044 and 1010 helmet shall meet the requirements of NFPA 1971-2013 edition, US-OSHA 1910.156, and CAL-OSHA. The request of a Bourke lens on these helmets reduces the certification to US OSHA 1910.156.

PERFORMANCE VERIFICATION DATA REQUIREMENT: Response to this specification shall include a current, NFPA 1971-2013 Certificate of Conformance test report from an accredited test facility for the helmet offered. This certification testing is conducted annually as per NFPA requirements.

MAINTENANCE, REPAIR & RETIREMENT:

Upon the customer's request, training will be provided explaining the proper maintenance, repair and retirement of the helmet.

BOOTS

NFPA 1971 and NFPA 1992 Compliant

Meets or exceeds NFPA 1971, Standard on Protective Ensembles for Structural Firefighting and Proximity Firefighting, 2013 Edition for Structural Fire Fighting and NFPA 1992, Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies, 2012 Edition.

General Design

14" Pull-On athletic footwear (cement construction) boot, black flame-resistant and waterproof leather, double-stitched leather joining seams, hi-vis yellow and silver reflective trim, leather-trimmed webbing pull straps, padded leather collar, padded leather flex joints in the shaft above vamp and heel, liquid and chemical resistant breathable bootie liner, cut-resistant and thermal protective bootie-shield liner, composite safety toe cap, composite shank, composite penetration-resistant insole barrier, molded shin guard, flame-resistant synthetic rubber molded cup outsole and toe bumper, 3D lasting board, molded heel counter, internal heel fit system, and removable molded footbeds including a second thicker pair.

Slip Resistance

Boots must exceed the minimum test values for slip resistance of left and right foot as detailed below to provide superior performance in dry, wet, and frosted rough ice conditions. Boots that do not exceed these minimums in all conditions will not be acceptable. Bidders must promptly supply a Technical Services Report from a recognized independent testing laboratory upon request showing that the boots bid meet this requirement.

Test Method: SATRA TM144:2007

Slip Resistance of Footwear and Floorings

Load = 500 N

Clay Quarry Tiles: Heel Dry = 1.00

Heel Wet = 0.80

Forepart Dry = 1.10

Forepart Wet = 0.80

Frosted Rough Ice: Heel = 0.30

Forepart = 0.35

Flexibility

Boots must reach the Maximum Flex Angle of 50 degrees without exceeding the critical bending moment with a resulting stiffness Index not to exceed 10.0 as detailed below to provide maximum flexibility.

Boots that do not meet this requirement will not be acceptable. Bidders must promptly supply a Technical Services Report from a recognized independent testing laboratory upon request showing that the boots bid meet this requirement.

Test Method: SATRA TM194:2004
Longitudinal stiffness of footwear

FireStorm Leather

Heavy-duty, flame-resistant and waterproof full-grain cattle hide leather measuring 2.0 – 2.2 mm of thickness for durable tear and puncture resistance. Tumbled full-grain cattle hide leather in collar and flex areas for mobility. Leather is chrome tanned to withstand high temperature with minimal shrinkage, re-tanned to impart water resistance and low water absorption, and finished to retain maximum breathability. Leather meets or exceeds the following physical tests:

Water Penetration ASTM D2009 15,000 flex minimum
Dynamic Water Absorption ASTM D2009 10% maximum
Static Water Absorption ASTM D6015 30% maximum
Slit Tearing Strength ASTM D2212 30 pound minimum
Moisture Vapor Transmission ASTM D5052 350 g/meter²/24 hours minimum
Flame Resistance NFPA 1971 after flame no more than 2.0 sec,
not melt or drip, no burn through

Bootie-Shield Liner

A protective bootie-shield of 65% NOMEX®, 35% KEVLAR® fiber stitchbonded non-woven batting weighing 4.0 oz./yd² is positioned between the leather shell and the CROSSTECH® moisture barrier bootie to provide abrasion and cut resistance and additional thermal protection. Boots that do not have an additional protective bootie-shield between the leather shell and the CROSSTECH® moisture barrier bootie will not be acceptable.

CROSSTECH® Footwear Fabric

A full-height bootie liner made from a package of Cambrelle®, 300g insulation, and CROSSTECH® moisture barrier to provide protection unmatched by any other waterproof, breathable barrier and as defined by the specified NFPA standards.

Athletic Footwear (Cement) Construction

Contoured outsoles are bonded to the bottom and sides of the upper using a 2-part cross-linking adhesive that forms a bond stronger than the materials it attaches. This attachment process is far more flexible than welted construction. Goodyear welt or direct attach construction methods will not be acceptable.

VIBRAM® Synthetic Rubber Contoured Cup Outsole

Molded synthetic rubber outsole wraps onto the upper for athletic shoe performance. Flame, abrasion, oil, acid, and slip resistant compound engineered for high-traction, cold-weather resistance, and durability. Siping lines cut into flat areas open up when flexed to provide additional traction on water and ice. Self-cleaning lugs and omni-direction tread pattern designed for superior performance in all terrains and when working on ladders.

Composite Penetration Resistant Insole Barrier

Penetration resistance will be provided by a composite insole to maximize flexibility and insulate from heat or cold transmission. Must exceed NFPA standards for safety. Metal plates will not be acceptable.

3D Composite Lasting Board

Boot uppers are lasted to a molded and contoured dual-density lasting board with a built-in flex zone in the forefoot and a torsionally stable heel.

Composite Shank

Lighter than steel, doesn't transmit heat or cold, and springs back to shape better. Metal shank will not be acceptable.

Composite Safety Toe Cap

Lighter than steel and doesn't transmit heat or cold. Must exceed NFPA standards for safety. Metal toe caps will not be acceptable.

Molded Heel Counter

A rugged heel counter is individually molded to fit each size perfectly.

Padded Shin Guard

Padded polymer shin guard provides extra protection when working on a ladder.

Synthetic Rubber Toe Bumper

Molded synthetic rubber toe bumper provides abrasion resistance when crawling. Cemented and 2-needle stitched to the vamp.

3M SCOTCHLITE™ Reflective Material

Flame-resistant fluorescent yellow and silver 3M SCOTCHLITE™ reflective material sewn to both sides of the shaft for added visibility.

Webbing Pull-Straps

NOMEX® webbing pull-straps with leather trim are securely attached to the leather uppers by inserting into to collar seam to minimize stitching through the leather. Pull strength must be a minimum of 120 lbs when tested with a single handle.

Internal Fit System

Anatomical foam insert wraps around the top and sides of the heel with an opening to fit and hold the back of the heel securely while cushioning the ankle.

3D Molded Footbed

Removable urethane foam footbeds are contoured to cradle and cushion the bottom of the foot and to provide arch support. Moisture-wicking and anti-microbial fabric top layer.

Custom Fit System

A second pair of 3D Molded Footbeds that are thicker in the forefoot is provided with every pair for a custom fit. This thicker footbed provides a snugger fit.

Sizes

Boots must be available in Men's 5 – 12.5 (full and half sizes), 13 – 18 (full sizes only) in Narrow, Medium, Wide, and X-Wide widths. Boots must also be available in a Wide Calf model in the same size range that will provide an additional 3 inches in circumference at the calf to fit those with larger calves. Boots must be available in Women's 5 – 12 (full and half sizes) in Narrow, Medium, Wide, and X-Wide widths.

Resoling Service

Boots must be able to be resoled at the factory with new outsoles as needed.

Country of Origin- Made in USA.

HOOD

COBRATM ULTIMATETM HOOD

Style # 3049298 Material: Carbon Shield™

Arc Rating: 23.3 HRC Rating: 2

DESIGN: Extra Long Double ply hood throughout

- X-Long length covers chest, shoulders and shoulder blades
- Flat-stitched seams
- X-heavy 1/2" wide elasticized face opening.
- Cover stitched bound drape
- Double-ply hood throughout

• UL Classified to NFPA 1971: Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting – Current Edition

FABRIC:

- Both outer shell and lining are a blend of Carbon/High Strength Aramid - approx. 6.5 oz sq yd.
- 1 x 1 rib knit fabric - knit to allow approx. 130% stretch for maximum stretch and recovery.
- Calendared to minimize laundry shrinkage.

STITCH TYPES AND SEAMS:

- All stitching conforms to federal Standard 751 Specifications (FEDSTD-751).
- Major seams are flat seam assembled, stitch type 607.
- Drape attachment to top is done with stitch type 401 and reinforced with stitch type 605
- Elastic in face opening is erged in with stitch type 503 and reinforced with bottom cover-stitch, stitch type 406.
- Binding is applied with bottom cover-stitch, stitch type 406.

THREAD:

All seams are sewn with 100% Nomex thread size Tex 40.

CONSTRUCTION:

- Composed of two layers throughout.
- For a contoured fit the hood is seamed from top of face opening to back of head.
- Face opening is circular in shape and serged with x-heavy duty 1/2" wide elastic around the perimeter. The elastic is then folded back 1/2" and cover stitched. The face opening stretches a full 16" (which is 25% more than conventional hoods) for easy donning and a snug fit around face of SCBA mask. Face opening maintains original shape after repeated launderings.
- The bottom edge of hood is bound with self-material bias binding.
- Gusset added at side seams to provide complete shoulder coverage and smoother drape.

PRODUCT SPECS

FINISHED HOOD MEASUREMENTS:

Size: One size hood fits all.

Labeling and User Information:

Each hood is clearly labeled to identify material contents, NFPA acceptance, UL Classification, Date of Manufacture, and Care Instructions. Included with each hood is a complete users information guide.

Meets or Exceeds Industry Standards

UL classified to meet or exceed NFPA 1971 - Current Edition; Compliant with CAL-OSHA, Sections 3406 and 3410(d) and OSHA Rule 29 CFR, Part 1910, 269. Compliant with NFPA 70E Current Edition and meets performance specifications of ASTM-F-1506. ARC Rating: 23.3 - Hazard / Risk Category: 2.

1. Face opening is circular and measures between 4.6" to 5.6" in diameter.
2. Length of hood below face opening approx. 12".
3. Length of hood at side from top to bottom approx. 17".
4. Length of hood at front and back from top to bottom approx. 19½".
5. Length of hood at front top to bottom approx. 20".

All proposals must include specific pricing for each component and style

Pants	GXT 43253-F	\$ 987.94 OR 45% OFF LIST
Coat	GXT 33253-F	\$ 1330.14 OR 45% OFF LIST
Any itemized option for PPE or Equipment		\$ 30% OFF LIST
Helmet A	CAIRNS 1010 DELUXE	\$ 292.57 OR 35% OFF LIST
Helmet B	CAIRNS 1044 DELUXE	\$ 268.37 OR 35% OFF LIST
Helmet C	PROXIMITY BONNET SHROUD	\$ 549.60 OR 35% OFF LIST
Gloves	TT PT8 TITAN	\$ 70.00 EA.
Hood	PG1 3049298	\$ 28.00 EA.
Suspenders	GXT 800621	\$ 29.29 EA.
BOOT:	1201400 SUPREME	\$ 331.70 or 38% OFF LIST.

Proposal grading:

Initially all proposals will be evaluated to ensure that they meet the RFP. All proposals that meet the RFP shall be prepared to provide an onsite demonstration of their product. After the demonstrations are complete we may require a test set of PPE to be provided at no charge for evaluation purposes.

The grading criteria for the proposal are as follows:

	Low 1	2	3	4	High 5	%
Price point						10
Vendor past performance						15
Ability to meet the needs of this contract						10
Ability to provide PPE in a timely manner						5
User evaluation						60