

**ORIGINAL DOCUMENT**

20-026

Request for Proposal

Project Title:

Firefighting clothes / bunker gear

Submitted to:

City of North Richland Hills

4301 City Point Drive

North Richland Hills, TX 76180

Prepared by:

CASCO INDUSTRIES INC.

1517 W. CARRIER PKWY

GRAND PRAIRIE, TX 75050

August 17<sup>th</sup>, 2020

## SUMMARY

Casco Industries Inc. is pleased to submit a proposal to provide and service the North Richland Hills Fire Department with clothing and bunker gear specific to firefighting operations. Our intent is to provide the City of North Richland Hills and its Fire Service professionals with MSA Globe Boots, Helmets, Coats, and Pants that have long been products with sustained durability due to the quality construction known in the fire industry. This also includes products from PGI and Veridian all of which meet the Scope of Work as specified within the RFP. All products listed on page 55 of the RFP meet the specifications with NO EXCEPTIONS.

Casco is a family owned business and have provided protection for those who protect us for over 67 years. Our headquarters is located in Shreveport, Louisiana and our Company now serves seven states with a sales and service center located in the City of Grand Prairie, Texas. Your local sales and service team are second to none as it relates to customer service in the Metroplex. All sales and service of the products listed will be carried out locally from the Grand Prairie Office as has been in the past number of years.

Casco will only offer products that fully meet NFPA standards to ensure the safety of all North Richland Hills Fire Rescue Personnel. We are prepared to complete all appropriate responses for this RFP and will supply all the necessary literature for the products offered. We are fully prepared to provide all products, service, and personnel training if needed as it relates to the products offered throughout the entire contract. With the exception of the Coat and Pant, all other products are in stock at our Grand Prairie Warehouse. The Coat and Pant has a 50 to 70 day-lead time.

We, at CASCO appreciate the opportunity to submit this proposal. All required documents are located with the RFP. It is our goal to sustain the level of customer service you have come to know and experience in the past. We look forward to continued business with the City of North Richland Hills and the North Richland Hills Fire Department.

Jessie Gentry

A handwritten signature in cursive script that reads "Jessie Gentry".

Sales Manager

Casco Industries, Inc



**PURCHASING DEPARTMENT  
REQUEST FOR PROPOSAL**

**20-026 FIRE FIGHTING  
CLOTHES/BUNKER GEAR**

**BIDS DUE THURSDAY, AUGUST 13, 2020  
BY 11:00 A.M.**

## **Contents**

INVITATION TO BID .....	3
GENERAL CONDITIONS .....	4
INSURANCE REQUIREMENTS.....	10
NON-COLLUSION AFFIDAVIT OF BIDDER.....	11
BID CERTIFICATION .....	12
COMPLIANCE WITH HOUSE BILL 1295 .....	13
FOR DISADVANTAGED BUSINESS ENTERPRISES ONLY .....	14
CONFLICT OF INTEREST QUESTIONNAIRE.....	15
SPECIFICATIONS.....	18

## INVITATION TO BID

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

- Bid Number: 20-026
- Bid Type: REQUEST FOR PROPOSAL
- Bid Name: FIRE FIGHTING CLOTHES/BUNKER GEAR
- Bid Due Date: Thursday, August 13, 2020
- Bid Due Time: 11:00 A.M. Central Standard Time
- Deadline for questions:
  - Date: Friday, August 07, 2020
  - Time: 12:00 P.M. Central Standard Time

DOCUMENTS MUST BE SUBMITTED ELECTRONICALLY VIA:

[www.publicpurchase.com](http://www.publicpurchase.com)

No oral explanation in regards to the meaning of the specifications will be made, and no oral instructions will be given 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 are submitted to the Public Purchase website on or before **11:00 A.M. Thursday, August 13, 2020**. The official time shall be determined by the Public Purchase Website. The Public Purchase Website will NOT allow bid responses to be uploaded after the closing time.

All attached bid documents are to be returned completely filled out, totaled, and signed. 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 within sixty (60) days after the opening of bids. 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.

**14. 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.



**15. 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. 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.

**17. 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.

**18. 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



August 11, 2020

## NRH CONTRACT 20-026 REFERENCES

1. Fort Worth Fire Department  
Contact: Alex Arnold  
Number: 817-392-3452  
EMAIL: [Alex.Arnold@fortworthtexas.gov](mailto:Alex.Arnold@fortworthtexas.gov)
2. Grand Prairie Fire Department  
Contact: Randy Overton  
Number: 972-237-8304  
EMAIL: [roverton@GPTX.org](mailto:roverton@GPTX.org)
3. Carrollton Fire Department  
Contact: Bill White  
Number: 469-491-7470  
EMAIL: [william.white@cityofcarrollton.com](mailto:william.white@cityofcarrollton.com)
4. Richardson Fire Department  
Contact: Allan Journey  
Number: 972-744-5704  
EMAIL: [allan.journey@cor.gov](mailto:allan.journey@cor.gov)
5. Dallas Fire Department  
Contact: Greg Henderson  
Number: 214-243-1190  
EMAIL: [Gregory.henderson@dallascityhall.com](mailto:Gregory.henderson@dallascityhall.com)

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.

**19. 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.

☒ Yes, we agree                      ☐ No, we do not agree

**20. 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.

**21. COMPLIANCE WITH SB 89:**

Vendor agrees per HB 89 of the 85th Texas Legislative Session, and in accordance with Chapter 2270 of the Texas Government Code, vendor has not and shall not boycott Israel at any time while providing products or services to the City of North Richland Hills.

☒ Yes, we agree                      ☐ No, we do not agree

**22. COMPLIANCE WITH SB 252:**

Vendor agrees per SB 252 of the 85th Texas Legislative Session, and in accordance with Chapter 2252 of the Texas Government Code, vendor shall not do business with Iran, Sudan or a foreign terrorist organization while providing products or services to the City of North Richland Hills.

☒ Yes, we agree                      ☐ No, we do not agree \*

\* By selecting no, vendor certifies that it is affirmatively excluded from the federal sanctions regime by the United States government and is not subject to the contract prohibition under Section 2252.154 of the Texas Government Code. Vendor shall provide sufficient documentation to the City of such exclusion prior to award of any contract for goods or services.

**23. ETHICS AND COMPLIANCE POLICY**

The City's Ethics and Compliance Policy can be found at The City of North Richland Hills Purchasing Division webpage - Or you may request a copy from the Purchasing Division. Acknowledgment - The City of North Richland Hills' Internal Ethics and Compliance Policy has

been made available to me. I understand the expectations of ethical behavior and compliance with the law, and agree to adhere to the City's ethics policies.

<https://www.nrhtx.com/DocumentCenter/View/389/Code-of-Ethics---PDF?bidId>

☒ I agree  
☐ I do not agree

**24. DEPARTMENT OF TRANSPORTATION (TXDOT) RELATED BIDS**

"The City of North Richland Hills, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award." 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 as 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 generally required. The City reserves the right to amend the insurance requirements or require additional types and amounts of coverages or provisions depending on the nature of the work or services to be performed.

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 & Poor's
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.**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
8/6/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> The Cashion Company P.O. Box 550  Little Rock AR 72203		<b>CONTACT</b> NAME: Julie Martin PHONE (A/C, No, Ext): (501) 376-0716 FAX (A/C, No): (501) 376-2118 E-MAIL ADDRESS: juliem@cashionco.com	
<b>INSURED</b> Casco Industries, Inc. P. O. Box 8007  Shreveport LA 71148-8007		<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A: Twin City Fire Insurance Co. 29459 INSURER B: Continental Casualty Co. 20443 INSURER C: Stonetrust Commercial Ins. Co. 11042 INSURER D: LM Insurance Corporation 33600 INSURER E: INSURER F:	

## COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	X	Y	[REDACTED]	2/1/2020	2/1/2021	EACH OCCURRENCE \$ 1,000,000	
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000	
	<input checked="" type="checkbox"/> Incl Contractual						MED EXP (Any one person) \$ 10,000	
	<input checked="" type="checkbox"/> XCU Incl						PERSONAL & ADV INJURY \$ 1,000,000	
GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE \$ 2,000,000	
<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC							PRODUCTS - COMP/OP AGG \$ 2,000,000	
OTHER:							\$	
B	<b>AUTOMOBILE LIABILITY</b>	X	Y	[REDACTED]	2/1/2020	2/1/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000	
	<input checked="" type="checkbox"/> ANY AUTO						<input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS							BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS							PROPERTY DAMAGE (Per accident) \$
							\$	
	<b>UMBRELLA LIAB</b>						EACH OCCURRENCE \$	
	<b>EXCESS LIAB</b>						CLAIMS-MADE	AGGREGATE \$
	DED						RETENTION \$	\$
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>	Y/N	N/A	[REDACTED]	2/1/2020	2/1/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 1,000,000	
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000	
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000	
D	Workers Compensation STATE OF KANSAS ONLY			[REDACTED]	2/1/2020	2/1/2021	E.L. EACH ACCIDENT/EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
See Attached Comments/Remarks Section

## CERTIFICATE HOLDER

## CANCELLATION

City of North Richland hills P. O. Box 820609 North Richland Hill, TX 76182-0609	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE Jim Allbritton/CLP001

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## COMMENTS/REMARKS

CASCO INDUSTRIES, INC.

### ENDORSED ADDITIONAL INSURED:

If required by written contract, certificate holder is included as an additional insured on a primary and noncontributory basis.

("X" denotes coverage.)

### ENDORSED WAIVER OF SUBROGATION:

If required by written contract, waiver of subrogation applies in favor of certificate holder.

("Y" denotes coverage.)

# NON-COLLUSION AFFIDAVIT OF BIDDER

State of TEXAS County of DALLAS

JESSIE GENTRY 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.

Jessie Gentry  
SIGNATURE

JESSIE GENTRY  
PRINTED NAME

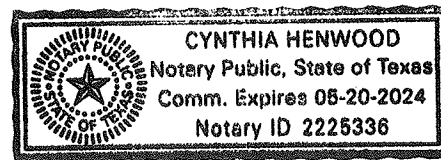
Subscribed and sworn to before me this

10<sup>th</sup> Day of August 2020.

Cynthia Henwood  
NOTARY PUBLIC in and for

Dallas County, Texas.

My commission expires: 05/20/2024



**THIS FORM MUST BE COMPLETED, NOTARIZED AND SUBMITTED WITH BID**



## 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 Ste 118

CITY, STATE & ZIP: GRAND PRAIRIE TX 75050

TELEPHONE: 972-522-0800

FAX: 318-865-8157

EMAIL: JESSIE@CASCOINDUSTRIES.COM

SIGNATURE: Jessie Gentry

PRINTED NAME: JESSIE GENTRY

DATE: 08/10/2020

## COMPLIANCE WITH HOUSE BILL 1295

In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that a governmental entity may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity at the time the business entity submits the signed contract to the governmental entity.

The law applies only to a contract of a governmental entity that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least \$1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016.

The Texas Ethics Commission has adopted rules necessary to implement the law, prescribed the disclosure of interested parties form, and posted a copy of the form on the commission's website.

### **Filing Process:**

The commission has made available on its website a new filing application that must be used to file Form 1295. A business entity must:

- 1) Use the application to enter the required information on Form 1295,
- 2) Print a copy of the completed form, which will include a certification of filing that will contain a unique certification number.
- 3) Contract Number should be the Bid/RFP Number and Bid Title.
- 4) Sign the printed copy of the form (an authorized agent of the business entity must sign),
- 5) Either include your personal information or have the form notarized,
- 6) File the completed Form 1295 with the certification of filing with the governmental body with which the business entity is entering into the contract.

The governmental entity must notify the commission, using the commission's filing application, of the receipt of the filed Form 1295 with the certification of filing not later than the 30th day after the date the contract binds all parties to the contract. The commission will post the completed Form 1295 to its website within seven business days after receiving notice from the governmental entity.

Information regarding how to use the filing application may be found at [https://www.ethics.state.tx.us/whatsnew/elf\\_info\\_form1295.htm](https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm).

# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.  
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

## OFFICE USE ONLY CERTIFICATION OF FILING

Certificate Number:  
2020-655040

Date Filed:  
08/10/2020

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Casco Industries, Inc.  
Grand Prairie, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

North Richland Hills City of

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

20-026  
Fire Fighting Clothes/Bunker Gear

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.



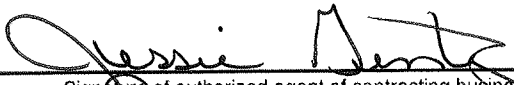
## 6 UNSWORN DECLARATION

My name is Jessie Gentry, and my date of birth is 12-19-60.

My address is 1517 W Caranish Pkwy Ste 118, Grand Prairie, TX, 75050, US.  
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Dallas County, State of TX, on the 10th day of August, 20 20.  
(month) (year)

  
Signature of authorized agent of contracting business entity  
(Declarant)

## FOR DISADVANTAGED BUSINESS ENTERPRISES ONLY

**Disadvantaged Business Enterprises (DBE)** are encouraged to participate in the City of North Richland Hills bid process. Representatives from DBE Companies should identify themselves as such and submit a copy of their Certification.

The City of North Richland Hills recognizes the certifications of both the State of Texas Building and Procurement Commission HUB Program and the North Central Texas Regional Certification Agency. All companies seeking information concerning DBE certification are urged to contact:

Texas Building and Procurement Commission  
Statewide HUB Program  
1711 San Jacinto Blvd., Austin TX 78701-1416  
P O Box 13186, Austin, TX 78711-3186  
(512) 463-5872

<http://www.window.state.tx.us/procurement/prog/hub/hub-certification/>

North Central Texas  
Regional Certification Agency  
624 Six Flags Drive, Suite 216  
Arlington, Texas 76011  
(817) 640-0606  
<http://www.nctrca.org/certification.html>

If your company is already certified, attach a copy of your certification to this form and return as part of your packet.

Company Names: N/A

Representative: N/A

Address: N/A

City, State, Zip: N/A

Telephone No. N/A Fax No. \_\_\_\_\_

Email address: N/A

### INDICATE ALL THAT APPLY:

- ☐ Minority-Owned Business Enterprise
- ☐ Women-Owned Business Enterprise
- ☐ Disadvantaged Business Enterprise

## **CONFLICT OF INTEREST QUESTIONNAIRE**

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. 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.

The Conflict of Interest Questionnaire is included as part of this document and can be found at:

**<https://www.ethics.state.tx.us/forms/CIQ.pdf>**

**CONFLICT OF INTEREST QUESTIONNAIRE**  
For vendor doing business with local governmental entity

**FORM CIQ**

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

**OFFICE USE ONLY**

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

CASEO INDUSTRIES, INC.

2 ☒ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

N/A

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐

Yes

☒

No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐

Yes

☒

No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

N/A

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 Dorey Schramm  
Signature of vendor doing business with the governmental entity

8-10-20

Date

**CONFLICT OF INTEREST QUESTIONNAIRE**  
**For vendor doing business with local governmental entity**

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

- (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

\*\*\*

- (2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

- (i) a contract between the local governmental entity and vendor has been executed;

or

- (ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

- (i) a contract between the local governmental entity and vendor has been executed; or

- (ii) the local governmental entity is considering entering into a contract with the vendor.

**Local Government Code § 176.006(a) and (a-1)**

- (a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

- (1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

- (2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

- (3) has a family relationship with a local government officer of that local governmental entity.

- (a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

- (2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

## SPECIAL TERMS AND CONDITIONS

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?

  X   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 Proposal (RFP) 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)

#### **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%, whichever 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 Lewisville
City of Bedford	City of Live Oak
City of Baytown	City of Kennedale
City of Cedar Hill	City of Mercedes
City of China Gove	City of Midlothian

City of Cleburne	City of Richland
City of College Station	City of Richardson
City of Colleyville	City of Rowlett
City of Colony	City of Royse
City of Copperas Cove	City of Southlake
City of Denison	City of Taylor
City of Ennis	City of Temple
City of Euless	City of Weatherford
City of Forest Hill	City of Westlake
City of Fort Worth	City of Watauga
City of Frisco	Birdville ISD
City of Garland	Mansfield ISD
City of Georgetown	Collin County
City of Grand Prairie	Harris County Department of Education
City of Grapevine	Johnson County ESD #1
City of Haltom City	Parker County Emergency Service District #1
City of Highland Village	Tarrant County
City of Hudson Oak	Town of Addison
City of Hurst	Town of Argyle
City of Irving	Town of Bartonville
City of Keller	Town of Double Oak
City of Lake Worth	Town of Highland Park

**Anticipated Usage:** While purchases vary from year to year, listed below are the amounts this contract generated with our previous vendor over a 12 month period in 2019.

Globe Gear (pants, coat, suspenders and boots (2019): \$1,268,321

Cairns Helmets (2019): \$326,852Techtrade

Gloves (2019):\$ 87,190

**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.

ENTITIES	
City of North Richland Hills	City of Roanoke
City of Cleburne	City of Rowlette
City of Cedar Hill	City of Royse
City of Grand Prairie	City of Taylor
City of Haltom City	City of Weatherford
City of Hurst	City of Westlake
City of Keller	Town of Addison
City of Midlothian	Town of Argyle
City of Richardson	

**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**

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:

### **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.) Women's: Straight
Sleeve:	1" increments

### **Pants:**

Gender:	Gender specific Men's and Women's patterns
Waist:	Even sizes

Body Shape: Men's Relaxed, Regular, and Slim

Relaxed is a fuller cut in the hips and thighs, like relaxed jeans.

Slim is a more slender cut in the hips and thigh, like straight fit jeans.

Women's

Inseam: Even sizes

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 "AGILITY™": featuring ENFORCE™ technology Kevlar®/PBO/Nomex® blend material with an approximate weight of 6.6 oz. per square yard in a twill 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 light gold. **Bids offering this shell material without the SST™ will not be considered.**

## **THERMAL INSULATING LINER - JACKETS AND PANTS**

The thermal liner shall be constructed of 6.7 oz. per square yard TENCATE CALDURA® ELITE NOMEX NANO®; one layer of Nomex Nano and one layer of 2.3 oz. per square yard Nomex® E-89™ spunlaced Nomex®/Kevlar® aramid blend, quilt stitched to a FR Rayon Para-Aramid nylon Face Cloth. An approximate 8 inch by 10 ½ inch pocket, thermal liner over-edged to a layer of moisture barrier material, shall be affixed to the inside of the jacket thermal liner on the left side by means of a single needle 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® Black moisture barrier – Type 2F, which is comprised of a CROSSTECH® membrane laminated to a Nomex® IIIA woven pajama check substrate. 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. 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. A minimum of six snap fasteners shall secure the thermal liner/moisture barrier to the outer shell along the length of the neckline under the top most collar. The top most collar shall be turned under and finished such that the snaps on the collar will not be able to contact the wearers skin. Corresponding snaps shall be installed through a moisture barrier leader measuring an approximate height of 1.75 – 2 inches and shall not penetrate through to the outer shell on the backside of the collar. 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. There shall be one Ara-shield® snap tabs at the liner sleeve end which shall be colored to correspond with color coded snap tabs on the shell sleeve end 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 the specified outer shell, moisture barrier and thermal liner, shall exhibit a TPP (Thermal Protective Performance) rating of not less than 37.4 as documented by Underwriter's Laboratory (UL) at time of bid.

#### **TOTAL HEAT LOSS**

The assembled garment, consisting of the specified outer shell, moisture barrier and thermal liner, shall exhibit a THL (Total Heat Loss) rating of not less than 299.9 as documented by Underwriter's Laboratory (UL) at time of bid.

#### **RESISTANCE TO SWEAT EVAPORATION**

The assembled garment, consisting of the specified outer shell, moisture barrier and thermal liner, shall exhibit a RET (Resistance to Evaporative Heat Transfer) rating of not greater than 24 as documented by Underwriter's Laboratory (UL) at time of bid.

**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. 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 jacket outer shell 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. Pleats that do not extend to the hem will not be considered, since they do not provide a true AXTION® back.

The moisture barrier and thermal liner layers 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, outside of the SCBA straps and work together with the corresponding outer shell 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 FR Nomex thread embroidery on the top of the left 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 1 inch wide strap, constructed of Kevlar®, 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, 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.

#### **LINER ACCESS OPENING (JACKET)**

The liner system of the jacket shall incorporate an opening at the leading edge of the right front panel. This opening shall run a minimum of 11 inches for the purpose of inspecting the integrity of the jacket liner system. When installed into the outer shell the Liner Access Opening shall be covered and protected by the overlap of the outer shell facing.

#### **RETROREFLECTIVE FLUORESCENT TRIM**

The retroreflective fluorescent trim shall be lime/yellow 3M Scotchlite™ COMFORT Trim (Heat applied segmented L/Y borders with silver center. 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.

#### **SEWN ON RETROREFLECTIVE LETTERING**

Each jacket shall have 3" lime/yellow 3M Scotchlite™ lettering sewn to the letter patch 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 minimum four-layer construction and be of one-piece design. There shall be two layers of a moisture barrier material sandwiched in between two layers of outer shell fabric (see Moisture Barrier section). The forward inside ply of moisture barrier shall be sewn to the inside of the collar along the edges only. The multi-layered configuration shall provide protection from water and other hazardous elements, while maintaining thermal protection. The collar shall be a minimum of 3



inches high and graded to chest 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 back layers of outer shell and moisture barrier shall be joined to the body panels with a minimum of two rows of stitching. The collar front layers of outer shell and moisture barrier fabric shall have a series of minimum 6 snap fasteners on lower edge of the collar. The top most collar shall be turned under and finished such that the snaps on the collar will not be able to contact the wearer's skin. There shall be corresponding snap fasteners on a moisture barrier leader, which is sewn to the thermal liner system to engage the snaps on the collar. The snaps on the thermal liner system leader will be installed such that they do not penetrate from the outer shell through to the inner layers. The moisture barrier leader on the thermal liner system shall be sandwiched between the underside of the top collar shell fabric and moisture barrier material and the bottom collar shell fabric and moisture barrier material so as to reduce the possibility of liner detachment while donning and doffing.

The throat tab shall consist of a minimum of four-layer construction and be a scoop type design. There shall be of two piles of outer shell material with two center piles 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 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 hook and loop fastener tape. The FR hook and loop fastener tape shall be oriented to prevent exposure to the environment when the throat tab is in the closed position. Two 1 ½ inch by 3 inch pieces of FR loop fastener tape shall be sewn horizontally to the inside of each end of the throat tab. Corresponding pieces of FR 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 hook fastener tape shall be sewn horizontally to the inside of the throat tab immediately under the 1 ½ inch by 3 inch pieces of FR loop fastener tape. The collar closure strap shall fold in half for storage with the FR loop fastener tape engaging the FR 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 2 ½ 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 a 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  $\frac{3}{4}$  inch 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 (6 inches for hook and dee inside/FR hook and loop fastener tape outside closure; aka #7C) wide and a minimum of 23 inches long (based on a 32 inch length jacket) shall be centered over the left and right body panels to ensure there is no interruption in thermal or moisture protection in the front of the jacket. 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 hook and loop 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 hook and loop fastener tape. A  $1\frac{1}{2}$  inch piece of FR loop fastener tape shall be installed along the leading edge of the storm flap on the underside with four rows of stitching. A corresponding  $1\frac{1}{2}$  inch piece of FR 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  $\frac{1}{2}$  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 hook and loop fastener tape. Two pieces of  $1\frac{1}{2}$  inch by 3 inch FR hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of  $1\frac{1}{2}$  inch by 3 inch FR 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 (over the hand) 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 grey. The wristlets shall be sewn to the end of the liner sleeves. Flame resistant neoprene coated cotton/polyester 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 hook and loop fastener tape 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 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 5 ¾ 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 3 inches longer than the depth of the pocket and ¼ inch wider than the pocket. The pocket flap shall be closed by means of FR hook and fastener tape. A 1½ inch by 3 inch piece of FR hook and 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 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 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 safety hook, attached to a double layer self-material strap, shall be double stitched in a vertical position to the upper chest. The inward facing safety hook will accommodate the clip portion of the flashlight. Below the safety hook will be a strap constructed of outer shell material measuring approximately 1 ¾ 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 hook and loop closure at the front of the strap to facilitate easy removal of the flashlight. There shall be approximately 3 ½ 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. In addition to the four body panels, there shall be a seamless, one-piece crotch gusset. The one-piece gusset allows for less bulk, comfort, and more freedom of movement in this high stress area. The body panels, seam lengths and crotch gusset 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.

### **CONTOURED SADDLE**

The rise of the rear pant center back seam, including gusset, 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 length in the seat for mobility without restriction when stepping up, kneeling, or crawling and maintains proper alignment of the knee, without twisting, directly over the kneepads when kneeling and crawling.

## **LINER ACCESS OPENING PANT**

The thermal liner and moisture barrier layers of the pant liner system shall be constructed in such a way as to allow an access opening for interior inspection, service and replacement. The thermal liner and moisture barrier layers shall be stitched together for security and prevention of inadvertent use of one layer without the other. The liner system shall have a reinforcement material sewn to the bottom of the fly opening. This reinforcement will serve to prevent the liner from tearing in that area from the constant donning and doffing of the pants.

The liner system of the pant shall incorporate an opening along the back of the waistline for ease in inspecting the inner layers and to facilitate performing the complete liner inspection. The thermal liner and moisture barrier shall be individually bound with a neoprene coated bias cut tape and joined together on each of the front panels, along the waistband from the front fly opening to the side seam. The back of the liner system will be allowed to remain open with two snaps on either side of the back seam to attach the moisture barrier layer to thermal liner layer. As described previously, the pant thermal layer system snaps directly to the independent waistband by means of nine snap fasteners. There shall be no hook and loop used to close the liner access opening.

## **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™ COMFORT Trim (Heat applied segmented L/Y borders with silver center. Bottom of trim band shall be located approximately 3" above cuff.

## **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 waist insert, running from the side seam towards the back of the trouser for an approximate distance of 4 inches. The rear elasticized waist inserts shall be integral to the shell of the pant and the elasticized portion shall be covered by the outer shell fabric of the pant.

The waist area of the pants shall be reinforced on the inside with a separate piece of black aramid outer shell material, cut on the bias (diagonally). The reinforcement shall be folded in half, for a finished bottom edge and shall have a finished width of not less than approximately 1 ½ inches. 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 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 by means of nine snaps, spaced equidistant along the length of the waistband reinforcement. Inserting the liner system between the waistband reinforcement and outer shell serves to reduce the possibility of liner detachment while donning and doffing. The independent waistband construction affords greater comfort and fit than a turned and stitched method. Pants that do not include

and independent waistband or are not cut on the bias will not provide the same amount of stretch to the garment 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 ¾ 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 underside of the outside fly flap shall have a 1½ inch wide piece of FR loop fastener tape quadruple stitched along the full length along 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 hook fastener tape shall be quadruple stitched to the outside right front body panel securing the fly in a closed position.

#### **CLOSURE**

##### **Escape Belt with Wide Belt Loops**

The pant shall have an integrated Escape Belt, which is independently certified as meeting the belt requirements of NFPA 1983, Standard on Life Safety Rope and Equipment for Emergency Services, which shall serve as the exterior primary positive locking closure. The Escape belt shall be comprised of Kevlar® webbing with a hook and an adjustable D-ring closure, graded for the waist size of the pants. The hook and dee closure system of the Escape Belt also serves as the positive front closure for the pants, eliminating redundant closure systems. The pants shall be equipped with a series of black aramid material belt loops spaced around the waist to accommodate the aramid belt. There shall be three large loops measuring approximately 4 inches high by 4 inches long and two smaller loops measuring approximately ½ inch wide by 3 ½ inches long. Two of the large belt loops shall be placed on each side of the front of the pant and third on the rear of the waist, centered over the seam. The two smaller loops shall be placed on the rear of the pant, behind the side seams.

#### **MICROPHONE STRAP**

A strap shall be constructed to hold a microphone for a portable radio. It shall be sewn to the pants at the ends only. The size of the microphone strap shall be 1 inch by 3 inches. The microphone strap shall be mounted vertically on the center rear belt loop, and constructed of double layer outer shell material.

## **ARTICULATED 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. In order to provide increased freedom of movement and maximum flexibility, extra material is built into the knee area and this additional fullness is contained by stitching down the pleats on the inside of the shell. The knee reinforcement shall 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 shall 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 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 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.

## **CATHEDRAL KNEE REINFORCEMENTS**

The knee area shall be reinforced with a layer of black Dragonhide® material. The cathedral shaped knee reinforcement shall be centered on the leg to ensure proper coverage when bending, kneeling and crawling. The knee reinforcements shall measure a minimum of approximately 7 inches wide by 12 inches high at the highest point shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance.

The articulated cathedral knee reinforcement shall be cut and stitched to the shell in a such a way that there shall be an arch at the top of the reinforcement, tapering down the sides of the reinforcement with a squared off bottom. 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, sandwiched between the thermal liner and moisture barrier. The placement of Silizone® padding on the thermal versus the shell



reduces the bulk in the shell and also serves to protect the padding from abrasion and other wear issues that the outer shell is subject to. Pants with Silizone® knee padding on the shell as opposed to on the liner, do not provide the same level of bulk reduction and abrasion resistance and are not recommended.

### **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 out-seam 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 backtacks and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of FR hook and loop fastener tape. Two pieces of 1½ inch by 3 inch FR 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 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.

### **EXPANSION POCKET REINFORCEMENTS**

The lower half of the expansion pockets shall be reinforced on the outside with a layer of black Dragonhide® material.

### **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 the left and right 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 black Ara-Shield® material 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 mark.

## **LABELS**

Appropriate warning label(s) shall be permanently affixed to each garment. Additionally, the NFPA certification 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.

#### **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**

#### **PRODUCT TYPE:**

Structural Firefighting Helmet(s) with Proximity Firefighting Option

#### **PRODUCT MODEL(S):**

MSA CAIRNS 1044™ and MSA CAIRNS 1010™ Traditional Fire Helmet

#### **PURPOSE:**

To supply a uniform, standard product specification for a fiberglass composite structural fire helmet.

**SCOPE:**

The scope of this product specification encompasses the performance criteria, design, construction, and materials deemed necessary for helmets utilized for structural (and proximity as applicable) firefighting.

**GENERAL:**

Helmets manufactured in accordance with this specification are designed to mitigate adverse environmental effects to the firefighter's head while providing the specifying authority with what are, in their opinion, essential requirements.

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

**PERFORMANCE CRITERIA:**

MSA Cairns 1044 and 1010 helmet(s) shall meet the requirements of NFPA 1971:2018 (or the current edition) for structural firefighting and proximity firefighting when that option is selected; US-OSHA 1910.156, and CAL-OSHA.

All eye/face protection sold as part of the original helmet assembly shall be compliant with the impact requirements of the current editions of ANSI/ISEA Z87.1 and NFPA 1971.

**PERFORMANCE VERIFICATION DATA REQUIREMENT:**

Response to this specification shall include a complete and current NFPA 1971 test report from a recognized, accredited test facility detailing all performance data for the helmet(s) and compliant helmet components included in the original assembly. Certificates of conformance and/or letters of certification alone shall not be acceptable. Component testing is not acceptable. Certification testing is conducted every year to a random lot size, as per NFPA requirements.

**MANUFACTURER'S WARRANTY:**

MSA warrants MSA Cairns Fire Helmets manufactured on or after January 1, 2015, to be free from defects in materials and/or faulty workmanship for a period of ten (10) years from the date of manufacture by MSA. For MSA Cairns Fire Helmets manufactured prior to January 1, 2015, please refer to ID 3600-09-MC / Jan 2005.

**HELMET SHELL:**

The Traditional Fire Helmets have a classic 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 watershed area. The upper surface of the watershed shall have a textured finish with ivy scroll on

the back of the watershed brim. The underside of the brim shall have drill guides for the various eye/face protection that can be attached to the shell.

The helmet shell material shall be a fiberglass composite, consisting of a high-temperature-, flame-, and chip-resistant “through-colored” thermoset resin, reinforced with 1” and 2” chopped fiberglass, compression molded to form a one-piece shell.

- 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, blue, and green painted finishes shall be available over a white composite shell.

- Cairns 1044 Helmet Colors

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

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 shell shall have black or (white shell helmets only), high-temperature, flame-resistant, flexible edge trim made of thermoplastic rubber (TPR) with an aluminum core. The edge-trim is secured around the entire brim of the helmet by crimping the aluminum core, which simultaneously captures and retains a wire used to reinforce the brim of the helmet. The edge trim is secured at the mating ends with a high temperature adhesive and clamped by the helmet hanger clip at the edge of the rear brim.

The shell shall have a helmet hanger comprised of a ¾”, nickel plated “D” ring and a stainless steel clip. The helmet hanger shall be attached to the center rear of the brim.

#### **FRONT HOLDER:**

The helmet shell shall be furnished with a collapsible brass front-piece holder designed to absorb impact that shall be attached to the main rib on the shell front, and positioned to capture the top of standard 6” fire department identification shields (i.e., front piece). The front holder shall be brass.

#### **Options:**

- Carved eagle
- Silk-screened eagle
- Silk-screened Maltese cross
- Carved dragon

- Carved beaver

The shell shall have a thermoplastic, front-piece mounting bracket affixed to the front center of the brim. The bracket shall provide for positioning and retention of 6" front pieces.

#### **IMPACT CAP:**

The impact cap is designed to help provide increased thermal and impact protection. The impact cap shall be an impact-resistant polymer liner covered by a rigid cell, high temperature, energy absorbing urethane foam cap that covers the entire inner crown of the helmet. This impact cap is held into the helmet shell by the Shell Release tabs and corresponding brackets. It is removable for inspection and replacement.

#### **HEAD SUSPENSION:**

The Traditional Fire Helmet shall consist of a six-way head suspension system, attached to the impact cap. The head suspension system comprises 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 rigid plastic clip that locks the straps into the lugs of the impact cap liner. A cloverleaf crown pad shall be incorporated into the overhead strap assembly.

#### **SHELL RELEASE SYSTEM:**

The impact liner, complete with suspension system and chinstrap assembly (as described under "**CHINSTRAP**") shall be retained to the helmet shell by means of two (2) thermoplastic retention clips mounted under the eye/face protection hardware. 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 leaving the impact cap on the wearer's head for continued thermal and impact protection.

#### **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 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 loop system to provide additional comfort to the wearer and maximize compatibility with the SCBA facepiece.

The headband shall have a head size range of 6 3/8 to 8 3/4, adjustable in 1/8" increments.

#### **COMFORT LINER:**

The Traditional Fire Helmet shall have a removable comfort liner, consisting of a headband cushion and a ratchet pad. Both components made of a foam-core laminate system, comprised of a soft black



flame-resistant flannel material against the user's head backed by a soft loop material which will be secured to the headband and ratchet with hook fastener. The comfort liner is machine-washable.

**Options:**

- Standard flannel
- Deluxe leather-lined

**CHINSTRAP:**

The chinstrap shall be constructed of three (3) pieces (or sections) of 3/4" wide, spun-Nomex webbing, which are connected by a high-temperature, durable thermoplastic quick-release buckle on the left side of the helmet, and by an optional cast zinc postman's slide buckle on the right side of the helmet. The middle section shall be a minimum of 23" in length and the total length of the chinstrap shall be 35" at full extension, end to end.

**Option:**

- Four-point chin strap

**EAR/NECK PROTECTION:**

The Traditional Fire Helmet provides ear and neck protection with a 7.25" wide, 19" long, full-cut earlap with an expanded opening at the neck, making the ratchet adjustment easily accessible.

The triple-layer earlap consists of a 4.5 oz. / yd., colored Nomex outer layer, and two flame resistant black flannel inner layers. The earlap shall be secured via two (2) Velcro tabs at either end of the top of the earlap and one continuous length of Velcro along the top edge of the 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 helmet suspension. The earlap shall be machine washable.

**Options:**

- Yellow Nomex
- Black Nomex
- PBI/Kevlar
- Bloodborne Pathogen
- Under chin extension

## **RETRO-REFLECTIVE TRIM**

The Traditional Fire Helmet shall have eight (8), Lime-Yellow tetrahedron shaped pieces of retroreflective trim around the exterior of the crown of the helmet shell for maximum visibility.

### **Options:**

- Reflexite material
- Scotchlite material with additional color options of:
  - Red/Orange triple trim
  - Lime yellow triple trim

## **EYE/FACE PROTECTION OPTIONS:**

### Defender® Visor

The MSA Cairns 1010/1044 Traditional Fire Helmets could have an integral visor that retracts between the helmet shell and impact cap. The visor shall be a wrap-around design, 4.5" high and 8.25" long and have a comfort nose pad. The lens shall be coated with a scratch resistant coating on both inner and outer surfaces to help protect it from abrasion. The lens shall be optically correct to eliminate distortion. The lens material shall be high-performance, impact-resistant plastic. The lens shall be able to be replaced within 15 seconds and without the use of tools (e.g. Allen wrench, screwdriver). The lens must be retained without the use of spring-loaded mechanics or lever system.

### **Options:**

- Clear lens
- Tuffshield (yellow tinted)

### Bourke Eye Shield

The Bourke Eye Shield is comprised of two 6.5" (W) x 2.75" (L) x 0.2" (D) polycarbonate lenses that pivot up and down at 90° simultaneously. The lenses are fastened to a single keep and cable (spring) system that allows the two (2) lenses to move simultaneously. When not in use (i.e., up) they are low-profile against the underside of the front brim. The entire assembly is mounted to a brass plate, which is secured to front center brim of the helmet shell.

### Faceshield and Hardware

#### Faceshield

The faceshield that 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, impact-resistant thermoplastic. The lens shall be coated with a scratch resistant coating on both inner and outer surfaces to protect the lens from abrasions.

#### Hardware

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 be raised above the helmet shell when not in use.

#### Goggle System

The goggle system that shall be comprised of a high-temperature, flame- and impact-resistant goggle lens and frame, a flame-resistant, elastic goggle strap, and a goggle retention system. 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, optically correct with a nominal thickness of 1/16”. The goggle strap will require a one-time adjustment which facilitates donning while wearing gloves.

#### **Options:**

- MSA Cairns 550 Goggle has a wrap-around strap that attaches to the back of the helmet with a D-Ring fastener.
- ESS Innerzone 2 has a snap-on/snap-off attachment to structural helmets. The low-profile post design works with all structural firefighting helmets.
- ESS Innerzone 3 has a wrap-around strap that attaches to the back of the helmet with two adhesive-backed hook & loop tabs.

#### **Proximity Fire Fighting Helmet**

The Traditional Fire Helmets shall be used **without a brass front holder** for proximity firefighting. The necessary components must include a proximity bonnet, a proximity shroud, and gold-plated visor. Use of these components shall enable these helmets to be compliant with the proximity firefighting helmet requirements of NFPA 1971: 2018.

#### **Proximity Bonnet**

The proximity bonnet shall be custom made to fit specifically over the MSA Cairns 1010 Traditional Fire 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 work 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 used in the proximity system 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.

## **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 Certified**

Certified to NFPA 1971, Standard on Protective Ensembles for Structural Firefighting and Proximity Firefighting, Current Edition for Structural Fire Fighting and NFPA 1992, Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies, Current Edition.

### **General Design**

14 inch Pull-On athletic footwear (cement construction) boot, black flame-resistant and water-resistant 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 composite heel counter, internal heel fit system, and a removable molded footbed as well an additional insert for use in conjunction with the footbed.

### **Slip Resistance**

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

Test Method: VUSA TT S&C 1-18 Ed. 1 Rev. 0

Slip Resistance of Footwear and Floorings

Load = 500 N

Dry Clay Quarry Tiles: Forepart > 1.00

Heel > 1.00

Wet Clay Quarry Tiles: Forepart > 0.60

Heel > 0.60

Frosted Ice -7°C Run 1: Forepart = 0.28

Heel = 0.28

Frosted Ice -7°C Run 4: Forepart > 0.12

Heel > 0.12

For maximum slip resistance each outsole shall have Siping lines. Siping lines cut into flat areas open up when flexed to provide additional traction on water and ice. The boot shall also include self-cleaning lugs and an omni-direction tread pattern designed for superior performance in all terrains and when working on ladders.

### **Flexibility**

Boots must reach the Maximum Flex Angle of 48 degrees without exceeding the critical bending moment with a resulting stiffness index less than 10.0 as detailed below to provide maximum flexibility. Boots that do not meet this requirement shall not be acceptable. Bidders must promptly supply a Technical Services Report from a recognized independent testing laboratory upon request showing the boots bid meet this requirement.

Test Method: SATRA TM194:2004

Longitudinal stiffness of footwear

### **FireStorm Leather**

Boots shall be made from heavy-duty, flame-resistant and water-resistant 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 shall be utilized in collar and flex areas for mobility. The leather shall be 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 shall meet or exceed the following physical tests:

Water Penetration	ASTM D2009	15,000 flex minimum
Dynamic Water Absorption	ASTM D2009	15% maximum
Static Water Absorption	ASTM D6015	30% maximum
Slit Tearing Strength	ASTM D2212	30 pound minimum
Moisture Vapor Transmission	ASTM D5052	350 g/meter <sup>2</sup> /24 hours minimum
Flame Resistance	NFPA 1971 afterflame no more than 2.0 sec, not melt or drip, no burn through	

### **CROSSTECH® Footwear Fabric**

A full-height, full sock, bootie liner made from a package of Omaha lining fabric, 300g felt insulation, and CROSSTECH® moisture barrier shall be provided for a liquid resistant and breathable moisture barrier as well as thermal protection as defined by the specified NFPA standards.

### **Athletic Footwear (Cement) Construction Outsole**

For optimum flexibility, comfort, and weight reduction, the boot shall include a VIBRAM® Synthetic Rubber Sculpted, Contoured Cup Outsole cemented 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. The outsole must be made from flame, abrasion, oil, acid, and slip resistant compound engineered for high-traction, cold-weather resistance, and durability. Goodyear welt or direct attach construction methods will not be acceptable.

### **Bootie-Shield Liner**

A protective bootie-shield of KEVLAR® fiber blend stitchbonded non-woven batting weighing 4.0 oz./yd<sup>2</sup> shall be 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 Flame Resistant (FR) protective bootie-shield between the leather shell and the CROSSTECH® moisture barrier bootie shall not be acceptable.

### **Composite Safety Toe Cap**

The safety shall consist of a composite material that is lighter than steel, does not transmit heat or cold, and will spring back to shape after impact. Must exceed NFPA standards for safety. Metal toe caps shall not be acceptable.

### **Padded Leather Collar**

The padded collar shall have a rolled top edge formed by folding over the leather to help the boots slide against the pants liner and reduce the potential for the pants liner to hang up on the top of the boots as well as to reduce abrasion against the wearer's calf.

### **Composite Penetration Resistant Insole Barrier**

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

### **3D Composite Lasting Board**

Boot uppers shall be lasted to a molded and contoured dual-density lasting board with a built-in flex zone in the forefoot and a torsionally stable heel. Flat fiber lasting boards shall not be acceptable.

### **Composite Shank**

The shank shall consist of a composite material that is lighter than steel, does not transmit heat or cold, and springs back to shape better. Metal shank shall not be acceptable.

### **Molded Heel Counter**

Boots shall have a molded heel counter of water-resistant composite material individually molded to fit each size perfectly. Leather or fiber board heel counters shall not be acceptable.

### **Padded Shin Guard**

Boots shall include a padded composite shin guard to provide extra protection when working on a ladder. Moisture absorbing natural fiber padding shall not be acceptable.

### **Synthetic Rubber Toe Bumper**

Boots shall have a molded Flame Resistant (FR) synthetic rubber toe bumper to provide abrasion resistance when crawling. The toe bumper shall be cemented and 2-needle stitched to the vamp.

### **3M SCOTCHLITE™ Reflective Material**

Boots shall have a flame-resistant fluorescent yellow and silver 3M SCOTCHLITE™ reflective material sewn to both sides of the shaft for added visibility.

### **Webbing Pull-Straps**

Boots shall have NOMEX® webbing pull-straps with leather trim securely attached to the leather uppers by inserting into to collar seam to minimize stitching through the leather.

**Internal Fit System**

Boots shall have an 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 Footbeds System**

Boots shall have a removable urethane foam footbed. The footbeds are contoured to cradle and cushion the bottom of the foot and to provide arch support. The footbeds shall have a moisture-wicking and anti-microbial fabric top layer. 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 full sizes 5 – 18 and half sizes 5 ½ – 15 ½ 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 full sizes 5 – 12 and half sizes 5 ½ - 11 ½ in Narrow, Medium, Wide, and X-Wide widths.

**Resoling Service**

The winning vendor shall have resoling services available at their factory as needed.

**Country of Origin**

Boots shall be manufactured in the United States.

**Third Party Testing and Listing Program**

The footwear shall be tested for compliance to NFPA Standard 1971 and 1992 by a recognized independent testing lab which shall certify and list compliance to that standard. Such certification shall be denoted by the independent testing labs mark on the certification label affixed to the boots.

**Labels**

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

- Compliance to applicable NFPA Standard(s), current edition(s)
- Independent Testing Lab mark
- Manufacturer's name



- Manufacturer's address
- Manufacturer's boot identification number
- Date of manufacture
- Size

### **ISO Certification/Registration**

The manufacturer shall be certified and registered to ISO Standard 9001 to assure a satisfactory level of quality.

### **Warranty**

The manufacturer shall warrant these boots to be free from defects in materials and workmanship for one year when properly used and cared for.

### **Sized by Vendor**

The vendor shall be available to perform all sizing requirements.

### **PPE Record Keeping**

The manufacturer shall make available at no-charge, a password protected data based backed website that allows all brands of PPE assets to be 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 expectations to the above specifications must be clearly stated for each heading. Use additional pages for exceptions, if necessary.

## **GLOVES**

### **General Design**

Gloves shall be of Gunn cut pattern. Glove palm shall be made with (3.0 oz. – 3.5 oz.) **EVERSOFT®** cow leather tanned with additives to stay soft when wet and provide low water absorbance. The back shall be (3.25 oz. – 3.75 oz.) smooth grain Flexor cow leather. Each glove has a girdle sewn into the palm for positive grip and a reinforced thumb. Welts are sewn into the middle and ring fingers for extra

seam strength. A layered nonrestrictive leather knuckle guard shall be sewn across the knuckle area. Knuckle guard shall have Fire Hog logo. Thread shall be 100% Kevlar.

The moisture barrier shall be breathable and waterproof Pyrotect barrier. Barrier material shall be 100% waterproof and provide viral/chemical penetration resistance and blood borne pathogen protection. To provide greater liner retention, reduce bulk in finger tips, and improve haptic feedback, a breathable adhesive shall be used in place of tip-tape to ensure full liner/barrier glove bonding.

Liner shall be full sock design made of 6 oz. no drip, no melt, FR modacrylic.

Glove shall be available in a gauntlet model or with 4" black 100% Nomex knit cuff with leather pull patch and hang up loop. The gauntlet style has a 1-inch leather cuff hemmed over the top of the glove.

Each glove shall be labeled in accordance with NFPA 1971, 2018 or current edition, labeling requirements including, date of manufacture and certification organization mark. The glove label shall include a two dimensional bar code with lot number and individual identification number to facilitate tracking. The label shall be tagless design attached to the inner cuff of each glove. The label shall be heat set and sewn on top and bottom for added durability. (Note: On gloves with the 4" Nomex cuff the label is heat set only to the knit wrist).

Gloves shall be available in the following stock sizes: (NFPA Standard 1971, 2018 or current edition)

- 58N (normal) = X Small
- 64N (normal) = Small
- 70N (normal) = Medium
- 70W (wide) = Medium Wide
- 76N (normal) = Large
- 76W (wide) = Large Wide
- 82N (normal) = X Large
- 82W (wide) = XX Large

Gloves shall be warranted against liner pull out for one year.

Gloves shall be certified to NFPA Standard 1971, 2018 or current edition and manufactured in the United States.

## **HOOD**

### **COBRA™ ULTIMATE™ 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.
- Calendered 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 ½” wide elastic around the perimeter. The elastic is then folded back ½” 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

Item	Price
Pants Globe Pants Per Specifications	\$ 1196.10
Coat Globe Coats Per Specifications	\$ 1374.90
Any itemized option for PPE or Equipment	\$ 30% off List Price
Helmet A CAIRNS 1010 Defender Deluxe	\$ 307.00
Helmet B CAIRNS 1044 Defender Deluxe	\$ 276.00
Helmet C CAIRNS Proximity w/ Bonnet + Shroud	\$ 648.60
Gloves Veridian Fire Hog	\$ 64.10
Hood PBI # 3049298	\$ 30.49
Boot Globe Supreme # 1201400	\$ 374.50
Suspenders Globe # 800621 H. BACK BLK	\$ 36.50

**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	%
<b>Price point</b>						10
<b>Vendor past performance</b>						15
<b>Ability to meet the needs of this contract</b>						10
<b>Ability to provide PPE in a timely manner</b>						5
<b>User evaluation</b>						60