



**REQUEST FOR PROPOSALS TITLE PAGE**  
**Include this Page as the First Page in the Proposal Response**

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**City of Lynchburg, Virginia**  
**Procurement Division**

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**Proposal Title: Protective Clothing for Structural Firefighting**

This is the City of Lynchburg's Request for Proposals (RFP) No. 2017-012-Rebid, issued September 19, 2016. Direct inquiries for information should be directed to Tomek Kruszc: e-mail: [tomek.kruszc@lynchburgva.gov](mailto:tomek.kruszc@lynchburgva.gov); Phone: 434-455-4233; Fax: 434-845-0711. All requests for clarification of or questions regarding this RFP must be made in writing and received by 2:00 p.m., September 27, 2016. All responses to this solicitation shall be in strict accordance with the requirements set forth in this RFP document and the ensuing contract documents.

Sealed proposals will be publicly accepted prior to **4:00 p.m., October 4, 2016**; however, only the names of firms responding will be available for announcement. Proposals received after the stated due date and time shall not be considered and will be returned to the Offeror. Submit proposals in a sealed, opaque envelope, and put the RFP number, title, due date and time on the lower left front. Offerors are responsible for having their proposal stamped by Procurement Division staff before the deadline indicated above and acknowledge all addenda so issued in the space provided below. Any alteration or changes to this RFP will be made only by written addendum issued by the Procurement Division, and all Offerors are responsible for obtaining issued addenda from the City's Procurement website: <http://www.lynchburgva.gov/current-solicitations>.

Acknowledge receipt of addenda here: No. \_\_\_\_\_ Date: \_\_\_\_\_ No. \_\_\_\_\_ Date: \_\_\_\_\_

Submit Proposals: BY MAIL, GROUND DELIVERY, OR HAND DELIVER TO:

Procurement Division  
Third Floor City Hall  
900 Church Street  
Lynchburg, Virginia 24504

**Information the Offeror deems Proprietary is included in the proposal response in section(s):** \_\_\_\_\_

See Paragraph B. on page 2 for guidelines on submitting proprietary information.

In compliance with this Request for Proposals and all the conditions imposed therein, the undersigned offers and agrees to furnish the services in accordance with the attached proposal or as mutually agreed by subsequent negotiations. By my signature below, I certify that I am authorized to bind the Offeror in any and all negotiations and/or contractual matters relating to this Request for Proposals. Sign in ink and type or print requested information.

Full Legal Name of Offeror: \_\_\_\_\_

Fed ID OR SOC. SEC. NO.: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_

\_\_\_\_\_ E-mail address: \_\_\_\_\_

Signature: \_\_\_\_\_

\_\_\_\_\_  
Typed or Printed Name, Title

\_\_\_\_\_  
City Buyer's Signature

## **I. SUBMISSION OF PROPOSALS**

- A. An original (1), so marked, and (5) copies, so marked, for a total of (6) of the proposal document are required. In addition, submit one (1) copy of proposal in an electronic format on CD. The City will not assume responsibility for reproduction where an insufficient number of copies have been supplied. In any such case, the City will notify the Offeror of the deficiency and request that the appropriate number of copies be delivered within 24 hours. Failure to comply with this or other requirements of this Request for Proposal shall be grounds for the City to reject such proposals. Telegraphic or facsimile submission of proposals is not acceptable and any such proposals will not be considered.
- B. **Submission of Proprietary Information**
- Trade secrets or proprietary information submitted by an Offeror in connection with this procurement transaction shall not be subject to public disclosure under the Virginia Freedom of Information Act; however, the Offeror must invoke the protection of this section prior to or upon submission of the data or the materials, and must identify the data or other materials to be protected and state the reason why protection is necessary. (Section 2.2-4342 F. of the Code of Virginia). **Offerors shall submit, in a separate section of the proposal, any information considered proprietary and any copyrighted material and clearly identify the information as proprietary and/or copyrighted information. Offerors may not declare their entire proposal proprietary nor may they declare proposed pricing to be proprietary.** References may be made within the body of the proposal to proprietary information; however all information contained within the body of the proposal not in the separate section labeled proprietary shall be considered Public Information.
- C. Proposals having any erasures or corrections must be initialed by the Offeror in ink.
- D. The City reserves the right to accept or reject any or all proposals, to waive informalities, and to reissue any request for proposals and to award contracts to multiple Offerors. Any contract resulting from this Request for Proposal shall not be exclusive to the successful firm. The City reserves the right to contract with firms not party to the resultant contract for similar work if it determines this to be in their best interest. If this is a cooperative procurement, each entity referenced will award a contract in accordance with its respective independent procurement policies and procedures and as it deems will best serve its interest.
- E. By submitting a proposal, the Offeror agrees that the proposal will not be withdrawn for a period of 90 days following the due date for proposal responses.
- F. By submitting a proposal, the Offeror certifies that it has not combined, conspired or agreed to intentionally rig, alter or otherwise manipulate, or to cause to be rigged, altered or otherwise manipulated its proposal for the purpose of allocating purchases or sales to or among persons, raising or otherwise fixing the prices of the goods or services, or excluding other persons from dealing with the City.
- G. By submitting a proposal, the Offeror certifies that its proposal is made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other Offeror, supplier, manufacturer or subcontracting firm in connection with its proposal; and that it has not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised.
- H. Nothing herein is intended to exclude any responsible Offeror or in any way restrain or restrict competition. All responsible Offerors are encouraged to submit proposals.
- I. The City will not be responsible for any expense incurred by any Offeror in preparing and submitting a proposal. All proposals submitted will become the property of the City.
- J. By submitting a proposal, the Offeror is certifying that Offeror is not currently debarred by the City, or in a procurement involving federal funds, by the Federal Government. A copy of the City debarment procedure in accordance with Section 18.1-10 of the City's Procurement Ordinance is available upon request.

## II. PURPOSE

- A. The purpose of this Request for Proposal (RFP) is to establish a requirements contract with firm pricing and delivery for the Lynchburg Fire Department (LFD) for Protective Clothing for Structural Firefighting, Coats, Pants, and related equipment and supplies.

## III. BACKGROUND INFORMATION

- A. The Lynchburg Fire Department, established in April of 1883, provides fire suppression and prevention services, emergency medical services, technical rescue, hazardous materials response, and confined space emergency response for approximately 76,000 Lynchburg residents, as well as the thousands who enter the area daily to work and shop. The department is staffed with 186 personnel, including civilians, firefighters and emergency medical personnel operating with eight stations, administrative office, specialized repair shop, and Fire Training Facility.
- B. LFD has a history of maintaining the highest level of quality and service for its members' protective equipment. LFD seeks to obtain turnout gear that offers its firefighters the thermal protection, greatest breathability, lightest weight, highest quality, and most functional design available.

## IV. SCOPE OF SERVICES

- A. Provide protective clothing for the Lynchburg Fire Department according to the minimum requirements found in Attachment A to this RFP.
- B. **Samples and Testing (after proposal submission): The City will require three (3) sets of gear for evaluation purposes. Samples shall be furnished within twenty-one (21) days after determination of the gear sizes required. The Offeror will be responsible for traveling to the City of Lynchburg to take measurement of the individuals that will be testing the gear.** Samples should be properly labeled with the Offeror's name and Item identifier number. If an Offeror requires that a sample be returned by the City after the evaluation, all costs associated with the return of the item shall be the responsibility of the Offeror. Offerors will be notified that the samples are no longer needed and are ready for pickup. **Sample test garments may be subject to damage or destructive evaluations. Damage or destructive evaluations may come from normal wear during the evaluations or by way of cutting or disassembly of the garments to observe the interior construction of the product materials. Testing will be performed as stated in Attachments C.**
- C. **Training:** Pricing should include the services of authorized manufacturer's representative(s) to provide onsite training on basic garment repairs, cleaning, and washing to City of Lynchburg Fire Department gear inspectors, advanced gear inspectors, and sewing and repair staff, and other designated personnel. The training will be required prior to the first delivery of any garments and then bi-annually according to the current NFPA 1851 standards. All costs associated with training, including travel costs, should be included in the Offeror's pricing. **Training updates by the authorized manufacturer's representative(s) should also be included for any product revisions, updates or changes as a result of NPFA or other associated changes that affect the design, manufacturing, materials, or testing of the garments. These updates shall be offered within thirty (30) days by the Contractor upon request by City of Lynchburg, VA.**
- D. **Shipping and Delivery:** Delivery shall be made to City of Lynchburg, Fire Department, Logistics Division, 2624 Lakeside Drive, Lynchburg, Virginia 24501. Desired delivery schedule is 45 days after receipt of order for normal requirements, fourteen days for reorders due to Contractor manufacturing, sizing or lettering errors and thirty days for recruit schools or emergencies. Deliveries shall be FOB Destination with all freight and handling charges included.

All garments (coats and pants) should be shipped in a plastic bag with product name, individuals name, size, and standard style interleave 2 of 5 bar codes containing at a minimum and individual serial number, size, and

manufacture date for asset tracking purposes that is clearly visible located on the outside of the bag. The bag identification is so that these garments can be properly stored, and separated with ease.

## V. **PROPOSAL PREPARATION**

Proposals must address the tasks included in the Scope of Services and the Criteria for Proposal Evaluation. Proposals should be prepared simply, providing straightforward and concise responses to requests for information and descriptions of qualifications and capabilities. Responses shall be limited to no more than 50 pages excluding the cover, including all other materials. Each copy of the proposal must be bound with all documentation in a single volume where practical. Failure to do so will result in a lowered evaluation. Incomplete proposals may be determined nonresponsive. Proposals with extraneous information will receive a lower ranking.

Offerors should organize their proposals using the format described below:

### **Title Page**

Furnish the **REQUEST FOR PROPOSALS TITLE PAGE** and include it as the first page of the proposal. The name stated on the Title Sheet must be the full legal name of the Offeror and the address must be that of the office which will have the responsibility for the services provided.

### **Section 1 – Ability to Meet Scope of Service Requirements**

- A. Understanding the problem and technical approach. Statement and discussion of the requirements as they are analyzed by the Offeror.
- B. Executive summary – Provide a narrative, prepared in non-technical terms, summarizing the Offeror's proposal. The executive summary should identify the following: Primary Contact for the Offeror, including name, address, telephone number, and E-Mail address.
- C. A detailed description of the services to be provided which addresses each of the topics listed in the Scope of Work and Technical Specifications. Clearly state your ability to meet or exceed the requested services. Include any exceptions taken to the specifications and your proposed alternative(s).

### **Section 2 - Credentials, qualifications, related experience of the Offeror, designated service team, and financial stability of the firm.**

- A. Statement of Qualifications and Capacity of firm to provide services required. The Offeror should include a description of the organizational staff experience as it relates to meeting the City's needs to include experience administered similar contracts for governmental entities. The response should address firm's size, structure, and number of years in business.
- B. Key Individuals – The Offeror shall produce a list of key individuals to be assigned to the City's contract, specify their role in administering the contract, and provide a current biography/resume for each individual.
- C. References – All Offerors shall include a list of a minimum of three references, from similar projects/contracts, who could attest to the firm's knowledge, quality of work, timeliness, diligence, flexibility, and ability to meet budget constraints. Include names and addresses, contact persons, phone numbers, and E-Mail addresses of all references. The City reserves the right to contact references other than, and/or in addition to those furnished by an Offeror. References may or may not be reviewed or contacted at the description of the City.

### **Section 3 – Compliance with Contractual Terms**

State your compliance with the City's contract terms and conditions. List any deviations and provide justification.

#### **Section 4 – Cost of Services**

Offeror shall provide a breakdown of costs which include all material, labor, and delivery costs for each item. All Offerors shall include the Pricing Schedule, Attachment B, with their proposals.

- A. Cost of each item listed in the Pricing Schedule.
- B. Detailed list of maintenance materials and supplies included at no charge.
- C. Detailed list of normal repairs and costs.
- D. Warranty Details.

#### **VI. PROPOSAL EVALUATION AND AWARD**

The City will review and evaluate each proposal and selection will be made on the basis of the criteria listed below:

- A. Functionality and performance of the turnout gear during the tests described in Attachment C. (60%)
- B. Maintenance, support, and training. (15%)
- C. Qualifications of the offeror including overall qualifications, experience, and expertise in providing goods and performance of the services required. (15%)
- D. Grand total price. (10%)

#### **Method of Award**

Following evaluation of the written proposals as submitted, offerors will be ranked by initial proposals. Samples will then be requested from the top candidates for evaluation purposes. After evaluation of samples, presentations shall be held prior to selection. The opportunity to present shall be made only to those whose samples were evaluated and deemed to be fully qualified and best suited among those submitting proposals, on the basis of the factors involved in the Request for Proposal. Upon completion of the presentations the selection committee shall select the number 1 ranked firm and the City shall begin negotiations with that firm in an attempt to reach an agreement to provide the services. Price shall be considered, but need not be the sole determining factor. If after negotiations have been conducted with the top ranked firm, an agreement cannot be reached, negotiations will be terminated with that firm, and negotiations began with the firm ranked number 2. This procedure will continue until an agreement is reached or negotiations are terminated and the services re-solicited. At any stage of the selection process should the City determine in writing and in its sole discretion that only one Offeror is fully qualified, or that one Offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that Offeror.

Notice of Award will be posted on the City's web site ([www.lynchburgva.gov](http://www.lynchburgva.gov)) and on the bulletin board located outside of the Procurement Office, 3rd floor City Hall, 900 Church Street, Lynchburg, Virginia, 24504.

#### **VII. CONTRACT TERM**

Initial contract term shall be for two years with the option to be automatically renewed for two (2) successive two year periods under the terms and conditions of the original contract except as stated in subsections and b below.

- A. If the City elects to exercise the option to renew the contract for an additional two-year period, the contract price(s) of the original contract increased by more than the percentage increase of the Textile Products and Apparel ID # WPU03 category of the Producer Price Index (PPI) of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available. The source for this index shall be <http://www.bls.gov/ppi>.

- B. If during any subsequent renewal periods, the City elects to exercise the option to renew the contract, the contract price(s) for the subsequent renewal period shall not exceed the contract price(s) of the previous renewal period increased by more than the percentage increase of the Textile Products and Apparel ID # WPU03 category of the Producer Price Index (PPI) of the United States Bureau of Labor and Statistics for the latest twelve months for which statistics are available. The source for this index shall be <http://www.bls.gov/ppi>.
- C. Contract Extension: The City has the right to extend this contract for up to one hundred eighty (180) days following any term on the contract.

## VIII. GENERAL TERMS AND CONDITIONS

The Contract for Services (“Contract” or “Agreement”) with the successful Offeror will contain the following Terms and Conditions. Offerors taking exception to these terms and conditions or intending to propose additional or alternative language must (a) identify with specificity the City Terms and Conditions to which they take exception or seek to amend or replace; and (b) include any additional or different language with their proposal. Failure to both identify with specificity those terms and conditions Offeror takes exception to or seeks to amend or replace as well as to provide Offeror’s additional or alternate Contract terms may result in rejection of the proposal.

### A. Subcontracting and Assignment of Work

The Consultant shall not subcontract or assign portions of the work, other than those specifically defined in the contract, without the express written consent of the City. A description of any work the Offeror proposes to subcontract shall be submitted to the City for review and approval along with the name and address of the individual, firm, or corporation that is the proposed subcontracting firm. This submittal shall also include a list of the key personnel that the subcontractor will assign to the project. All work performed by any subcontractor shall be coordinated by the Consultant who shall be responsible to the City for all work performed by any subcontractor or special consultant.

### B. Independent Successful Firm

The Consultant is an independent firm and nothing contained in a subsequent contract shall constitute or designate such firm or any of its agents or employees as employees of the City.

### C. Notification

Any notice required by the contract shall be effective if given by registered mail, return receipt requested, to the Consultant in the name and at the address given in its proposal submission; provided that change of address shall be effective if given in accordance with this paragraph. Unless otherwise specified, any notice to the City shall be given to the City of Lynchburg, Procurement Manager, 900 Church Street, Lynchburg, VA 24504. The Consultant agrees to notify the City immediately of any change of legal status or of address. Any notice provided in accordance with this paragraph shall be deemed to have been completed five calendar days after the date of mailing.

### D. Cooperative Procurement

This procurement is being conducted by the City of Lynchburg in accordance with the provisions of 2.2-4304 *CODE OF VIRGINIA*. Except for contracts for architectural and engineering services, if agreed to by the contractor, other public bodies may utilize this contract. The Contractor shall deal directly with any public body it authorizes to use the contract. The City, its officials and staff are not responsible for placement of orders, invoicing, payments, contractual disputes, or any other transactions between the Contractor and any other public bodies, and in no event shall the City, its officials or staff be responsible for any costs, damages or injury resulting to any party from use of a City Contract. The City assumes no responsibility for any notification of the availability of the contract for use by other public bodies, but the Contractor may conduct such notification.

E. Termination

Subject to the provisions below, the contract may be terminated by the City upon thirty (30) days advance written notice to the Consultant; but if any work or service hereunder is in progress, but not completed as of the date of termination, then the contract may be extended upon written approval of the City until said work or services are completed and accepted. All information and materials gathered and/or prepared by or for it under the terms of the contract shall be delivered to, become and remain the property of the City. The City shall have the right to use and reproduce the data and reports submitted hereunder, without additional compensation to the Consultant.

Termination for Convenience:

The City may terminate this contract for convenience at any time in which the case the parties shall negotiate reasonable termination costs.

Termination for Cause:

In the event of Termination for Cause, the thirty (30) days advance notice is waived and the Consultant shall not be entitled to termination costs.

Termination Due to Unavailability of Funds in Succeeding Fiscal Years:

If funds are not appropriated or otherwise made available to support continuation of the performance of this Contract in a subsequent fiscal year, then the Contract shall be canceled and, to the extent permitted by law, the Consultant shall be reimbursed for the reasonable value of any non-recurring costs incurred but not amortized in the price of the supplies or services delivered under the Contract.

F. Laws and Regulations

The Successful firm shall abide by all Federal, State and Local laws and regulations governing the provision of the services called for in the contract. The Successful firm shall give notice and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the work.

By entering this Contract, the Consultant certifies that it does not and will not during the performance of this Contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

This contract shall be governed and construed in all respects by its terms and by the laws of the Commonwealth of Virginia. Any legal proceedings arising out of or related to this contract shall be filed by the parties in the City of Lynchburg General District Court or the Lynchburg Circuit Court.

G. Additional Services

The City may add to the Scope of Services any services of a similar nature to those specified in the Scope of Services of this Request for Proposals as mutually agreed to at a price mutually agreed upon.

H. Severability

Each paragraph and provision of the resultant contract will be severable from the entire contract and if any provision is declared invalid, the remaining provisions shall remain in effect.

I. Licenses and Permits

The successful firm shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the work which are legally required prior to and during the work. The City will not charge for any permits required by the City of Lynchburg.

J. Nondiscrimination

If the resultant contract exceeds \$10,000, during the performance of the contract, the Consultant agrees as follows:

- a. The Consultant will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational

qualification reasonably necessary to the normal operation of the Consultant. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

- b. The Consultant, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, will state that such Consultant is an equal opportunity employer.
- c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- d. The Consultant will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontracted firm or vendor.

K. Payments to Successful firms

Payments to the Consultant shall be made within 30 days after receipt of an approved invoice for services provided in the previous month. Backup documentation for each invoice shall be provided in detail satisfactory to the City. The Consultant's records and documentation supporting such invoices shall be made available to the City upon reasonable request. The Consultant agrees to retain all records, documents and support materials relevant to the contract for a period of five years following final payment. Invoices must be prepared in formats as required by funding agencies.

In accordance with Virginia Code Section 2.2-4354 the Consultant agrees that:

- 1. Should any contractor be employed by the Consultant for the provision of any goods or services under this Contract, the Consultant agrees to the following:
  - (a) The Consultant shall, within seven days after receipt of any payments from the City pursuant to this Contract, either:
    - (1) Pay the subcontractor for the proportionate share of the total payment received from the City attributable to the goods or services provided by the subcontractor; or
    - (2) Notify the City, as applicable, and the subcontractor, in writing, of the intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment. Written notice to the City shall be given to: City of Lynchburg Procurement Manager, 900 Church Street, Lynchburg, VA 24504.
  - (b) The Consultant shall pay interest to the subcontractors, at the rate of one percent per month on all amounts owed to the subcontractor that remain unpaid after seven days following receipt of payment from the City for goods or services provided under this Contract, except for amounts withheld under subparagraph (a)(2) above.
  - (c) The Consultant shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractors firm.
  - (d) The Consultant's obligation to pay an interest charge to a subcontractor shall not be an obligation of the City.
  - (e) No contract modification shall be allowed for the purpose of providing reimbursement for these interest charges. No cost reimbursement claim shall include any amount for reimbursement of these interest charges.

L. Contractual Claims

Any claims by a contractor or anyone claiming on the contractor's behalf against the City arising under or relating to a contract shall only be resolved as specified in the City's Procurement Ordinance, Sec. 18.1-7, ensuring timely notice of the claim.

The contractor shall give the City written notice of any claim within ten (10) days of the beginning of the occurrence of the event leading to the claim being made. The written notice shall be a document from the contractor addressed

to the City official or employee designated by the contract to receive such notice, or if no one is so designated, to the City Manager. The written notice shall clearly state the contractor's intention to make a claim, shall describe the occurrence involved, and shall be transmitted in a manner to ensure receipt by the City. The contractor shall submit the claim and any supporting data to the City within thirty (30) days after the occurrence giving rise to the claim ends. The burden shall be on the contractor to substantiate that it has given written notice and submitted its claim in accordance with this provision.

M. Taxes

The Consultant shall pay all City, State and Federal taxes required by law enacted at the time proposals are received and resulting from the work or traceable thereto, under whatever name levied. Said taxes shall not be in addition to the contract price as the taxes shall be an obligation of the Consultant and not of the City and the City shall be held harmless for same by the Consultant.

N. Indemnification

To the fullest extent permitted by law, the Consultant, for itself, heirs, representatives, successors and assigns agrees to save, defend, keep harmless and indemnify the City and all of its officials, agents and employees (collectively, the "City") from and against any and all claims, loss, damage, injury, costs (including court costs and attorney's fees), charges, liability or exposure, however caused, resulting from, arising out of or in any way connected with the Consultant's performance (or nonperformance) of the contract terms or its obligations under this contract.

O. Contract Assignment

The resultant contract may not be assigned, in whole or part, without the written consent of the City. The rights and obligations of the Consultant are personal and may be performed only by the Consultant. Any purported assignment that does not comply with this provision is void. This contract is binding upon and inures to the benefit of the parties and their respective permitted successors and assigns.

P. Royalty and License Fees and Copyright, Trademark and Patent Protection

The Successful firm shall pay all royalty and license fees relating to the items covered by the contract. In the event any third party shall claim that the manufacture, use and sales of these goods offered hereby constitutes an infringement of any copyright, trademark, or patent, the Offeror shall indemnify and hold harmless the City from any cost, expense, damage or loss incurred in any manner by the City on account of such alleged infringement.

Q. Precedence of Documents

The precedence of documents shall be as follows: the CONTRACT, the Request for Proposals and the Offeror's response to the Request for Proposals.

R. Insurance

The Consultant shall be required to maintain in force such insurance, in amounts acceptable to the City, as will protect it and the City from claims which may arise out of or result from the execution of the work, whether such execution be by the firm, its employees, agents, subcontractors or by anyone for whose acts any of them may be liable. This coverage should include, at a minimum, Worker's Compensation and General Liability (including premises/operations, independent successful firms, products and completed operations, contractual liability and personal injury liability). All insurance shall be provided by companies authorized to conduct business in the Commonwealth. The Consultant shall furnish the City with an original Certificate of Insurance upon request. The Certificate should name the City as additional insured under their General Liability coverage. The Consultant shall notify the City at least 30 days prior to policy cancellation, non-renewal or reduction of coverage.

S. Administrative Appeals Procedure

- (a) The following are the exclusive procedures for a bidder or offeror to protest the city's award or decision to award a contract.

- (1) Any protest to award a contract shall be in writing and shall be delivered so that it is received by the city manager not later than five (5) business days after announcement of the award or decision to award, whichever comes first. Otherwise any such protest shall be deemed to be waived.
  - (2) Except for a protest of an emergency or sole source procurement, a protest of a city award or decision to award a contract may only be made by a person who submitted a bid or proposal for the procurement at issue and who was reasonably likely to have its proposal accepted but for the city's decision. In the case of an emergency or sole source procurement, a protest may only be made by a person who can show that he was reasonably likely to have submitted a successful bid or proposal if the procurement had been other than emergency or sole source.
  - (3) Protests shall only be granted if (1) the protester has complied fully with this Sec. 18.1-6 and there has been a violation of law, the Lynchburg public procurement code, or mandatory terms of the solicitation that clearly prejudiced the protestor in a material way, or (2) a statute requires voiding of the decision.
  - (4) The city manager shall issue a written decision on a protest within ten (10) days of its receipt by the city manager.
  - (5) If the protest is denied, the protestor may only appeal the denial or otherwise contest or challenge procurement by then filing suit in the Lynchburg circuit court, Lynchburg, Virginia, and serving the city with such suit within ten (10) days of such denial. Otherwise, the city manager's decision shall be final and conclusive, and the protestor's right to appeal the denial or to otherwise contest or challenge the procurement shall be deemed to be waived.
  - (6) The city should defer award of a contract where the decision to award has been protested unless there is a written determination by the city manager that proceeding without delay is necessary to protect the public interest or unless the bid or offer of the prospective awardee would expire.
  - (7) The validity of a contract awarded and accepted in good faith shall not be affected by the fact that a protest or appeal is filed.
  - (8) The exclusive relief allowed if a protest is granted is to void the decision being protested. If a contract has already been awarded and performance under the contract has begun, the contract need not be voided if not in the public interest to do so. Under no circumstances will any monetary amount be allowed to the protestor as part of any relief granted.
  - (9) Strictly following these procedures shall be a mandatory prerequisite for protest of the city's award or decision to award a contract. Failure by a bidder to follow these procedures strictly shall preclude that bidder's protest and be deemed to constitute a waiver of any protest.
- (b) A protest may not be based upon the alleged non-responsibility of a person to whom the city awards or makes a decision to award a contract.

T. Drug Free Workplace

In accordance with Sec 2.2-4312 of the Virginia Code, during the performance of this contract, the Consultant agrees to (i) provide a drug-free workplace for the consultant's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Consultant's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the consultant that such consultant maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each sub-Consultant or vendor.

Successful firm shall not use, possess, manufacture, or distribute alcohol or illegal drugs during the performance of the contract or while on City premises or distribute it to City employees.

Successful firm understands that a violation of these prohibitions constitutes a breach of the contract and that the City has the right cancel the contract.

For the purpose of this section, “Drug-free workplace” means a site for the performance of work done in connection with a specific contract awarded to a firm, the employees of which are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

U. Certification by Consultant as to Felony Convictions

No one with a felony conviction may be employed under this Contract and by the signature of its authorized official on the response to this solicitation, the Consultant certifies that neither the contracting official nor any of the Consultant's employees, agents or subcontractors who will work under this contract have been convicted of a felony.

V. Confidentiality

1. Consultant Confidentiality

The Consultant acknowledges and understands that its employees may have access to proprietary, business information, or other confidential information belonging to the City of Lynchburg. Therefore, except as required by law, the Consultant agrees that its employees will not:

- a) Access or attempt to access data that is unrelated to their job duties or authorizations as related to this Contract.
- b) Access or attempt to access information beyond their stated authorization.
- c) Disclose to any other person or allow any other person access to any information related to the City or any of its facilities or any other user of this Contract that is proprietary or confidential. Disclosure of information includes, but is not limited to, verbal discussions, FAX transmissions, electronic mail messages, voice mail communication, written documentation, “loaning” computer access codes and/or another transmission or sharing of data.

The Consultant understands that the City, or others may suffer irreparable harm by disclosure of proprietary or confidential information and that the City may seek legal remedies available to it should such disclosure occur. Further, the Consultant understands that violations of this provision may result in Contract termination.

The Consultant further understands that information and data obtained during the performance of this contract shall be considered confidential, during and following the term of this Contract, and will not be divulged without the Purchasing Agent’s written consent and then only in strict accordance with prevailing laws. The Consultant shall hold all information provided by the City as proprietary and confidential, and shall make no unauthorized reproduction or distribution of such material.

2. City Confidentiality

The City understands that certain information provided by the Consultant during the performance of this Contract may also contain confidential or proprietary information. Consultant acknowledges that this Contract and public records (as defined by §2.2-3701 of the Virginia Freedom of Information Act) provided pursuant to this Contract are subject to the Virginia Freedom of Information Act §§2.2-3700 et seq. and the Virginia Public Procurement Act §2.2-4342 of the Code of Virginia.

- W. The Consultant shall devote such part of its time as is reasonably necessary to the operations outlined under the resultant contract. The Consultant may engage in business ventures of a nature and description independent of this Contract with the City. The Consultant is required to disclose immediately any outside activities or interests, as they arise, that conflict or suggest a potential conflict with the declared or stated interests of the City. The Consultant is required to disclose all local government clients and must attest that work for those clients will not conflict with the interests of the City. The City reserves the right to object to such attestations. If such objections arise, the parties will agree to the best course of action to resolve the conflict or potential conflict.

- X. The Consultant shall conduct all transactions under this contract in good faith. The Consultant will employ the highest ethical and professional standards at all times — failure to do so could result in termination of the Contract for cause or convenience.

## **SPECIAL TERMS AND CONDITIONS**

- A. **Acceptance of Goods/Services:** The goods and/or services delivered under a resulting contract shall remain the property of the Contractor until a physical inspection is made, and thereafter accepted to the satisfaction of the City. In the event goods and/or services supplied to the City are found to be defective or do not conform to specifications, the City reserves the right to cancel the order upon notice (verbal or in writing) to the Contractor and return goods to the Contractor, at the Contractor's expense.
- B. **Condition of Items:** All materials used for the manufacture or construction of supplies, materials, or equipment covered by this solicitation shall be new. Unless otherwise provided in the solicitation, products bid must be new, the latest model, the best quality, and the highest grade workmanship.
- C. **Requirements Contract:** Quantities set forth in solicitations seeking a source of supply for requirements contracts for goods and/or services are estimates only. No guarantee or warranty is implied by the City of Lynchburg, Virginia, as to any minimum or total amount that may be purchased from any resulting contracts. The Contractor shall supply at bid prices actual quantities as ordered, regardless of whether such quantities are more or less than those set forth in the solicitation and/or the pricing schedule.

In the event that a requirements contract is awarded for goods and/or services, the City reserves the right to bid individual bulk purchases if the City deems it will serve their best interests.

D. **Warranty (Goods and Services):**

A limited warranty should be provided. This warranty is to cover defects in workmanship and materials for the useful life of these products when used by workmanship and materials for the useful of these products when used by appropriately trained personnel following accepted firefighting procedures and when the products warning, use, and care instructions are followed. The manufacturer's warranty obligations should include one or more of the following:

1. Repair or replace the product without charge.
2. Granting a credit to be applied toward the purchase of an equal to or better garment in the amount equal to the original purchase price or prorated over the useful life of the product.
3. Refund the original price.

The term "useful life" is to be considered the length of time the garment can safely be worn for structural firefighting activities, without needing major structural repairs that would not be economically feasible. It is the City of Lynchburg Fire Department's opinion that the useful life will vary from garment to garment, according to type and frequency of use, and the weight and type of materials used in the garment. In practical terms, the average useful life of the City of Lynchburg Fire Department's ensemble is expected to be serviceable for no less than 7 years of normal firefighting wear and tear.

**A copy of the warranty shall be provided with the proposal.**

# ATTACHMENT A: DETAILED TECHNICAL SPECIFICATIONS

## Protective Clothing for Structural Firefighting: Coat and Pant

### LEGAL RIGHT TO SPECIFY

The Fire Department (for the remainder of this section referred to as the “specifier”) chooses to exercise its Legal Right to Specify as determined by the U.S. Supreme Court’s affirmation of the decision handed down in the case of *Whitten Corp. vs. Paddock*, by the U.S. District Court of Massachusetts, the First Federal District Court, which in effect states:

- 1) That as trained professionals, specifiers make informed judgments on products that they feel best serve their needs. Also, that proprietary specifications (if chosen) DO NOT violate any antitrust laws. Technically, very few brands of material or equipment are exactly alike, and if the specifier wants to limit the specification to one source, he has the right to do so and enforce it.
- 2) Only the specifier has the responsibility and judgment for determining whether a proposed substitution is an “or equal”.
- 3) That from start to finish in the procurement process, only the specifier can ultimately decide if another desirable product is available in lieu of the specification.
- 4) Finally, that the courts concluded “the burden is on the supplier or manufacturer, who has NOT been specified, to convince the specifier that their product is equal for the purpose of a particular project”.

The specifier has determined that this product specification shall represent the product to which all offerings shall be compared. Due to the fact that firefighting is an ULTRAHAZARDOUS, UNAVOIDABLY DANGEROUS activity, only trained specifier personnel with specific knowledge in the area of Personal Protective Equipment shall be allowed to make the final determining decision on the selection of the appropriate product to serve the specifier’s needs.

### SCOPE

The following specifications, developed by the LFD, define the minimum requirements and attributes for structural firefighter personal protective equipment (PPE). Offerors shall identify in their proposals any specific areas where their proposed gear does not meet the below specifications and provide details of their alternate approach to the particular specification exception. Where exceptions to specifications are NOT noted in the proposal, the Offeror shall be required to furnish gear meeting the specifications in their entirety.

### STANDARDS, APPLICABLE DOCUMENTS, UNITS OF MEASURE, AND CERTIFICATION

The following standards in their most active versions on the date of proposal submittal shall form part of this specification to the extent herein.

#### STANDARD

ASTM D 6193-97

NFPA 1500, Latest Edition

#### TITLE

Standard Practice for Stitches and Seams

Standard on Fire Department Occupational Safety and Health Program

NFPA 1851, Latest Edition	Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles
NFPA 1971, Latest Edition	Standard on Protective Ensemble for Structural Fire Fighting

The manufacturer shall certify that the garments proposed meet or exceed all requirements of NFPA 1971. The manufacturer must also list and label this product with Underwriters Laboratories Inc. (UL) or Safety Equipment Institute (SEI), as the third party certification organization prescribed in NFPA 1971. All certification testing and test preconditioning shall have been performed by an ISO 17025-certified laboratory. UL, SEI or a UL Authorized Client Test Data Program laboratory will fulfill this requirement.

Current NFPA standards applicable to this product specification express values for measurement requirements in SI (metric-based) units, followed by US (inch-pound) approximate equivalents in parentheses. For the convenience of the LFD, this product specification *reverses the order* and presents the more familiar US approximation first, followed by the SI requirement in parentheses.

The manufacturer shall be registered to ISO 9001, Quality Management Systems Requirements, (2000).

## **WARRANTY**

The manufacturer must provide a lifetime warranty against defects in materials and workmanship.

## **PRODUCT COUNTRY OF ORIGIN**

For liability reasons, companies must manufacture garments in the United States of America or Canada with their assets and incorporation within the United States of America or Canada.

## **LABELING REQUIREMENTS**

Labels shall be permanently and integrally printed onto materials that meet all the requirements for labels of NFPA 1971. The garment shall be clearly labeled to fully identify the material content of all three layers: outer shell, moisture barrier and thermal liner.

In addition, each separable outer shell component of the garment shall be labeled with the FEMSA-style DANGER label in an obvious location. Label shall include separate bar codes for the serial number, size, manufacturer date, and member's first/last name.

## **CARE INSTRUCTIONS**

The Contractor shall provide a user information guide for the garments, which complies with user information requirements of NFPA 1971. Topics shall include, but not necessarily be limited to pre-use information, preparation for use, inspection frequency and details, don/doff, use consistent with NFPA 1500, maintenance and cleaning, and retirement and disposal criteria and considerations.

This document shall be packaged with each garment along with a specification summary sheet describing garment custom options, sizing and production details. This written information shall be in complete compliance with NFPA 1971 requirements, and shall reference same.

## **TRACEABILITY PROGRAM**

The Contractor shall have in place a computer maintained traceability program that provides for the assignment of a production control number to each garment. The traceability program must be capable of tracing the garment through production, from the bolts of cloth used in all three layers of the garment composite construction, to the assignment of the garment to the individual firefighter. This production control number shall be visibly located on the garment label and on other protected areas of garment.

## **PATENT CONSIDERATIONS**

The Contractor, without exception, shall indemnify and save harmless the Purchaser and its employees from liability of any nature and kind, including cost and expenses for or on account of any copyrighted, patented or un-patented invention, process, or article manufactured or used in the performance of the contract, including its use by the Purchaser. If the Contractor uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the Contractor prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

## **SIZING**

To ensure a perfect fit, sizing shall be determined by actual measurements taken of the firefighter by a trained measurement specialist, or sizing try-ons, or both. Sizing measurements shall be taken according to a schedule and location(s) mutually agreed between the manufacturer and the department.

Garments shall be available in custom sizing as follows: coat chest in 2-inch (5.1 cm) increments, coat sleeve in 0.5-inch (1.3 cm) increments, coat back length in 1-inch (2.5 cm) increments, pant waist in 2-inch (5.1 cm) increments and pant inseam in 1-inch (2.5 cm) increments. A full range of women's sizing, on women's patterns, must also be available. Each sleeve and inseam length shall provide 100% gradation from shoulder to wrist, and from hip to ankle, to provide proper fit for individual arm and leg lengths. Pattern tailoring to custom-fit neck, bicep, hip/seat and thigh circumferences must also be provided, when needed, at no additional charge. Neither Small-Medium-Large-Extra Large sizing nor women's garments cut to men's patterning are considered acceptable, since proper fit facilitates mobility and minimizes stress.

## **SELF-BINDING**

Liner and moisture barrier shall be stitched together and turned, then topstitched, to create a self-binding edge. The extra bulk of separate binding material is specifically prohibited.

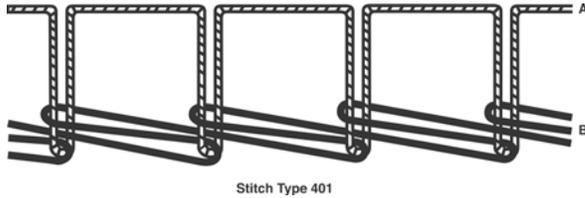
## **THREAD**

All thread used in structural seams shall be Nomex® of a minimum Tex size T-70. Light colored garments and trim areas shall feature yellow thread. Black and dark garments shall feature black thread. Tan or bronze colored garments shall feature tan thread.

# STITCH METHODS

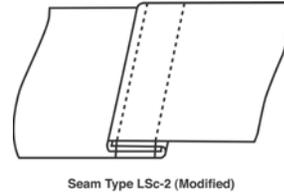
## Major A & B seams

Except for the collar Major A seam, which is single-needle lock stitched three times, all Major A & B seams (as defined by NFPA 1971) shall be double stitched, double feld throughout all three layers (outer shell, moisture barrier and thermal liner), and shall be made with Nomex® thread, minimum Tex size T-90. Detailed stitch and seam type requirements are shown below.



*Stitch Type 401*

*Double lockstitch, as defined by  
ASTM D 6193-97*



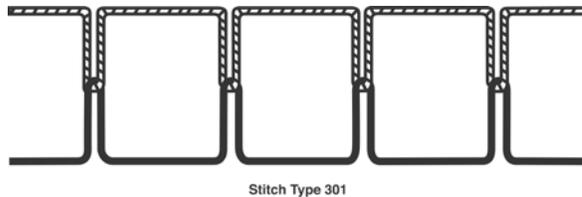
*Modified Seam Type LSc-2*

*Double feld seam, modified only to ensure that  
both stitch lines penetrate all layers of cloth at  
joining, otherwise as defined by  
ASTM D 6193-97*

Also, all moisture barrier seams shall be tape-sealed to meet all requirements of the NFPA 1971 Liquid Penetration Resistance Test.

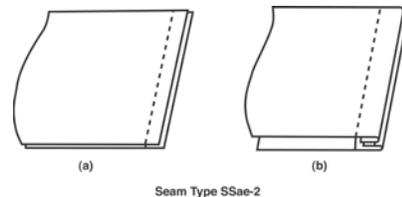
## Minor seams

Most Minor seams, such as storm shields and mated hems, shall also be stitched with the specified Nomex thread. Detailed stitch and seam type requirements are shown below.



*Stitch Type 301*

*Lockstitch as defined by ASTM D 6193-97*

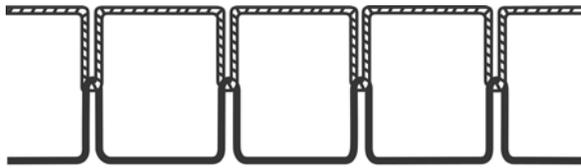


*Seam Type SSae-2*

*As defined by ASTM D 6193-97, shown  
(a) before and (b) after required turning*

## POCKETS

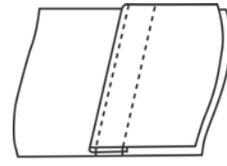
Flat garment pockets shall be stitched with the specified Nomex® thread. Detailed stitch and seam type requirements are shown below.



Stitch Type 301

*Stitch Type 301*

*Lockstitch as defined by ASTM D 6193-97*

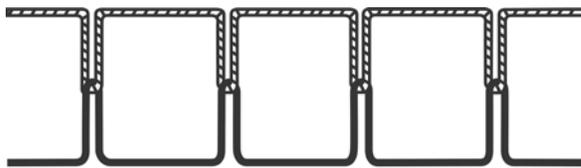


Seam Type LSd-2

*Seam Type LSd-2*

*As defined by ASTM D 6193-97*

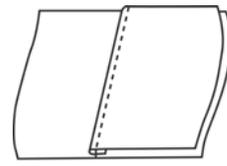
3-Dimensional pocketing shall feature these same construction details, but the reinforced single stitch Seam Type LSd-1 may be substituted for LSd-2. Detailed seam type requirements are shown below.



Stitch Type 301

*Stitch Type 301*

*Lockstitch as defined by ASTM D 6193-97*



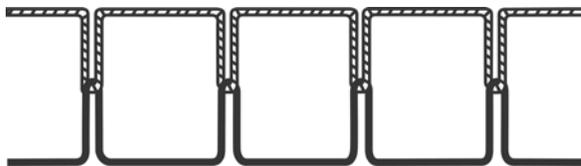
Seam Type LSd-1

*Seam Type LSd-1*

*As defined by ASTM D 6193-97*

### **Trim and DANGER labels**

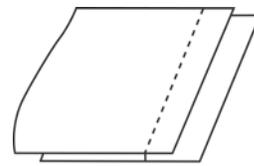
Trim and DANGER labels shall be stitched with the specified Nomex® thread. Detailed stitch and seam type requirements are shown below.



Stitch Type 301

*Stitch Type 301*

*Lockstitch as defined by ASTM D 6193-97*



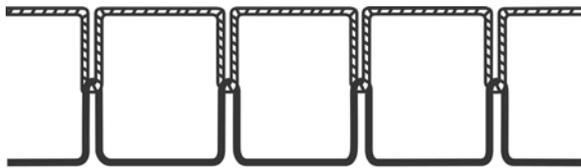
Seam Type SSbd-1

*Seam Type SSbd-1*

*As defined by ASTM D 6193-97*

### Single layer hemming and finishing

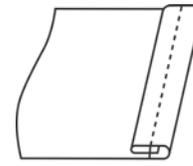
Single layer hemming and finishing shall be stitched with the specified Nomex® thread. Detailed stitch and seam type requirements are shown below.



Stitch Type 301

*Stitch Type 301*

*Lockstitch as defined by ASTM D 6193-97*



Stitch Type EFb-1

*Seam Type EFb-1*

*As defined by ASTM D 6193-97*

### POCKETS

When exterior pockets are specified, the following requirements shall apply to all such custom option specified exterior pockets:

- All pockets and flaps shall be reinforced at the top corners with bar tack stitching.
- All pockets shall be reinforced with an extra layer of NFPA-certified outer shell, moisture barrier, or other NFPA-certified reinforcement material for extra durability. The exact location of the reinforcements shall be identified in the custom options section(s).
- All pockets shall have a means to drain water and shall have a means of closure.
- All pocket closures shall be made either with hook and loop fastener tape a minimum of 1.5 inches (3.8 cm) wide, with a flap, or with snaps. The specific placement of the closure system shall be outlined in the custom options sections.

### TAILORED GRADING OF GARMENT LININGS

Wherever garment linings are specified, including, but not limited to the thermal linings and moisture barriers, each such lining layer should be tailor-graded to fit with respect to overall garment composite of all layers without causing bunching or binding when the garment is worn. All garment layers and cold weather accessory linings shall be graduated in size to fit within in each other in the overall composite without causing bunching or binding when the garment is worn.

### POINTS OF STRESS

All points of stress shall be reinforced with sturdy bar tacks. Rivets are not acceptable because of their potential for rust and electrical or heat conduction. Areas with stitching such as the coat light strap should utilize a box stitch method and not a single line stitch method to enhance durability.

## **ASSET TRACKING SERVICES**

The Contractor shall be capable of providing a Windows-compatible software program for the tracking of care, cleaning and maintenance of the department's PPE.

This tracking program shall meet or exceed all record-keeping requirements of standard NFPA 1851, *Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles*, Latest Edition

Labels on each separable part of the garment shall include a standard style interleaved 2 of 5 barcode containing (at a minimum) an individualized serial number for asset tracking purposes.

**The Contractor must be capable of providing onsite or internet training to department personnel who are involved with the daily use of this tracking program, and if there is an additional cost involved for this service, the Contractor must disclose those costs in the proposal.**

Software upgrades for the tracking system shall be included. If there are additional costs for the upgrades, the cost must be provided in the proposal.

## **REPAIRS AND ALTERATION SUPPORT**

The Contractor shall furnish, free of charge, reasonable quantities of NFPA 1971-certified thread, materials and other supplies to allow the department to manage its own ongoing internal maintenance efforts. **A detailed list of materials and supplies shall be included with proposals.** Also, the manufacturer shall provide on call at no charge, during normal business hours, a liaison for the repair department to assist the LFD on a telephone consultation basis, on all maintenance or repair questions that might arise. Additionally, the manufacturer shall agree to expedite, on its own cost-only basis, all repairs that must be performed at the manufacturer's plant, rather than in department, over the life of the contract. **A list of normal repairs and costs should be provided with the proposal.**

Additionally, the Contractor shall provide, prior to the first delivery of any garments, and then annually thereafter, training according to the current NFPA 1851 standards, at no-charge to LFD. The training shall be provided for sewing technicians and other designated personnel to educate as to current basic garment repairs, cleaning and washing instructions, and basic garment inspection practices.

## **HIGH TEMPERATURES THERMAL INSULATING MATERIALS REQUIREMENT**

Because thermally stable materials are essential to maximizing protective performance in firefighters' PPE, and because NFPA only states "minimum" performance requirements, all thermal liner or thermal enhancing materials used in the garments shall also meet the following criteria after the 500 degree F oven test:

- 1) Material shall remain intact and flexible
- 2) No portion of the material shall crack, crumble or flake

## **BREATHABILITY REQUIREMENT**

Excluding where required by NFPA standard, necessary for functionality, or specifically called out in the custom option sections, all materials fabrics and reinforcements used in the construction of the garments shall be breathable and all moisture barrier material must be as specified in the Materials Section.

The breathability requirement includes but is not limited to collar, chinstrap, storm flap/shield, fly, water wells, front coat facings, and reinforcement cushioning where applicable.

Areas where non-breathability is allowed (absent Custom Option specifications): trim or other items placed externally on the arms that might need extra material to pass NFPA required Stored Energy Testing, hook and loop fastening, hardware or hardware backing, and pocket linings where used exterior to the outer shell.

## **CONDUCTIVE AND COMPRESSIVE HEAT RESISTANCE (CCHR)**

Using breathable materials as outlined in the section titled Breathable Materials, there shall be a minimum area of 4" x 4" (10.2 cm x 10.2 cm) at the shoulders and elbows that provides a minimum of 25 CCHR at 2 psi and a minimum area of 6" x 6" (15.2 cm x 15.2 cm) at the knees that provides 25 CCHR at 8 psi.

In all three of these compression areas at least a portion of the protective area shall be made from high temperature fiber based materials sewn to the thermal liner on the inside of the liner toward the moisture barrier.

## **SEAM PROTECTION AT CUFFS**

At the coat and pant cuff Major A seams, the reflective trim shall stop just before the folding of the full fold seam and for additional abrasion protection be covered by a sewn on strip of polymer coated Kevlar material laid on top of the Major A seam and covering each end of the trim.

## **COAT SPECIFICATION DETAILS**

To avoid liability and interface problems, coats and pants shall be procured from the same manufacturer.

## **DESIGN CONCEPT (STYLING)**

The standard coat design shall be 6-inches (15.2 cm) longer at the rear hem than at the front hem and provide continuous and unbroken moisture barrier and thermal liner protection from the collar seam to the hem at the bottom of the coat tail. Each coat length shall be determined by each individual's torso length to provide the coat-to-pant interface as defined by NFPA 1500. Coat design must interface properly with standard waist high bunker pants. To facilitate various body types the front to rear length differential shall be made available in 3-inch (7.5cm), 4-inch (10.0cm), 5-inch (12.5cm and 6-inch (15.0cm) "Tail Drops".

## **PATTERNING CONCEPT**

Garments shall feature a tailored three-piece body (with one-piece back) and one-piece, set-in sleeve construction throughout the outer shell, moisture barrier and thermal liner layers. One-piece garment body (either all layers or some layers) will not be considered acceptable since they cannot be tailored to hard-to-fit personnel. Similarly, garments with seams in mid-back are not considered acceptable because of backbone irritation that can occur with SCBA use. To facilitate individual tailoring needs, the major A & B seams joining the one-piece back to the right and the left front body panels (outer shell and all interior layers) shall be located at the most lateral position when the coat is laid flat for inspection.

## **PATTERNING REQUIREMENTS**

To assure maximum freedom of movement and reduce kinetic resistance with minimum garment weight and bulk, coat patterning shall include the following features:

1. Degree of slope on shoulders shall be no more than 20%.
2. Hydraulic Butterfly sleeve patterning having built-in underarm bellow with 85-degree Lift Up Release Action shall be provided to minimize coat hem rise.
3. Sleeve attachment shall minimize shoulder lift and allow a full 360 degrees freedom of movement.
4. Coat hem rise with overhead reach of both arms not to exceed 4-inch (10.2-cm) maximal extension on properly fitted garments.
5. Shell-and-liner retraction at the cuff shall not exceed 1 inch (2.5 cm) when both arms are raised overhead. This helps eliminate wrist exposure.
6. 10-inch (25.4-cm) chest over-sizing shall be provided.
7. Coat sweep measurements must be consistent with the chest over-size at the hem.
8. Reach when measured from cuff to cuff, with coat lying flat, and standard length sleeves extended to each side, shall be provided as detailed below.
9. An alteration point at the hem that during manufacture allows the sweep dimension to be adjustable in two-inch (5.0cm) increments

<u>Chest Size</u>	<u>Standard Reach</u>
40 in (101.6 cm)	66 in (167.6 cm)
42 in (106.7 cm)	67 in (170.2 cm)
44 in (111.8 cm)	68 in (172.7 cm)
46 in (116.8 cm)	68 in (172.7 cm)

## **DRAG RESCUE DEVICE (DRD)**

Contractor shall supply an NFPA required and certified Drag Rescue Device with each coat. Each strap will be properly labeled with the chest size(s) the Rescue Strap is designed to fit. Each strap shall be properly labeled with DANGER labels that include what chest size the Rescue Strap is designed to fit, instructions for care and maintenance, and installation/removal of the Rescue Strap.

Rescue Strap shall be designed in a fashion that it functionally provides a dynamic and articulated action and to eliminate excess strapping material hanging down the back when installed between the garment's liner and outer shell.

The device shall be constructed using two components: a 1.75" (4.45 cm) Kevlar webbing grab handle; and a free-floating loop of Kevlar rope to go around each of the wearer's arms/shoulder.

The grab loop shall extend upward and pass through a tunnel of outer shell and pass out through a reinforced slot in the coat outer shell just below the center rear of the collar seam. . The protruding grab loop shall then fold back down and be stored by hook and loop fastener.

The end of the garb loop shall be covered with an outer shell flap sewn below the held in place with hook & loop fastener to reduce the chances of snagging the grab loop by accident.

The Grab Handle shall be constructed of soft and pliable Kevlar webbing meeting the following specifications:

Description	100% Kevlar Double Plain Weave
Width	1.75" (4.45 dm)
Thickness	0.064" ± 0.010" (.163 cm ± .0254 cm)
Tensile	5,000 lb minimum (22.24 kN)

To facilitate comfort and safety the free-floating loop shall be constructed of soft and pliable Kevlar rope meeting the following specifications:

Description	100% Kevlar Tubular Plain Weave - Natural
Width	.038" (.097 cm)
Thickness	0.144" ± 0.005" (.366 cm ± .013 cm)
Tensile	3500 lb minimum (15.57 kN)

Rescue Strap shall be sewn with Kevlar thread.

There shall be a Positive Closure Bent D-Ring and Reverse Hook (NY Metro Style, or equivalent) installed on the DRD Kevlar Rope to positively circle the chest as the coat is closed. The Bent D-Ring will be attached to the Kevlar rope that exits the right front of the garment via a grommet under the storm flap and is held in place by two snaps. The Reverse Hook will be attached to the Kevlar rope that exits the garment on the left front via a grommet and covered flap.

The Positive Closure Bent D-Ring and Reverse Hook will replace one standard Hook and Dee of the coat closure and will be placed on the chest trim.

The grab loop shall consist of a rolled handle stored under a flap and secured with hook and fastener.

## **LINER ATTACHMENT**

The completed liner-moisture barrier assembly shall attach by means of four (4) evenly spaced glove snaps to each outer shell front facing to reduce weight, bulk and stiffness. To provide continuous moisture and pathogen protection at the front, the liner shall be positioned so it is sandwiched between the coat front facing and a breathable pathogen shield. The use of zippers or hook and loop fasteners in this area is not allowed due to their added weight, bulk and stiffness.

Liner sleeves shall be attached at the cuff by means of snaps on two (2) sets of Nomex tabbing per liner cuff. The male and female snap parts shall both be located on Nomex tabbing that is sewn to the liner at the cuff. In an effort to prevent abrasion, a separate piece of Nomex tabbing shall be sewn to the shell cuff and fashioned as a loop without any snap hardware.

To provide continuous moisture protection and pathogen protection at the neck, the liner shall be positioned so that it is sandwiched between an outer-facing pathogen shield and an inside facing of the specified outer shell material, both folded over and sewn in at the neck seam,

The liner system design should not allow products of combustion or other contaminants to move into the liner interior between the moisture barrier and the thermal liner. For example, separately hemmed and bartacked liner and moisture barrier with open edge designs would not be acceptable.

Attachment at the neck shall be by means of four (4) glove straps that penetrate only the layer of the attachment strip facing towards the liner, so that metal contact at a wearer's neckline is eliminated.

Attachment of the inner liner to the tail of the coat shall be attached by means of 5 snaps on two (2) sets of outer shell fabric tabbing strips with one in the center back of coat and the other 4 spaced evenly to prevent the two different layers of the coat from separating when donning or doffing the garment.

#### **COAT CERTIFICATION LABEL ON LINER**

The coat certification label on the liner shall be integrally printed on FR Cotton Indura<sup>®</sup> affixed and lock stitched to the inside right body panel of the liner in a fashion to provide an inside liner pocket.

#### **COAT CERTIFICATION LABEL ON SHELL**

The coat label on the shell shall be integrally printed on FR Cotton Indura<sup>®</sup> affixed and lock stitched in a conspicuous location once the liner is removed.

#### **COLLAR**

The collar shall be of layered construction, consisting of a layer of waterproof moisture barrier and a layer of NFPA 1971-certified insulating material, sandwiched between two (2) layers of specified outer shell material. NFPA compliant collars shall be at least 3 inches (7.6 cm) high while CGSB compliant collars shall be at least 4 inches (10.2 cm) high. The design shall incorporate in its patterning a natural contour that will allow proper fit and performance in the standing (upright) or stowed position.

There shall be no vertical or horizontal seams or stitching in the body of the collar. The left outside of the collar shall have a sewn piece of 2-inch x 2-inch (5.0-cm x 5.0-cm) hook fastener tape for chinstrap-to-collar closure. The fastener tape shall be located rearward far enough to allow for the location of a forward mounted microphone tab if so desired. Each collar shall be graded to individual coat sizes.

#### **CHIN STRAP**

The chinstrap shall be of layered construction identical to that of the collar configuration described in the previous paragraphs. Chinstrap shall be of a crescent shaped design with *minimum dimensions of*: 9 inches (22.5 cm) long across the top corners, 10.5 inches (26 cm) long across the bottom corners, and 3.5 inches (8.75 cm) in vertical height, measured at the center. The leading underside edge of the chinstrap shall have a 4.0-inch-wide (3.8 cm-wide) horizontal strip of loop fastener tape to ensure an adequately adjustable closure and to ensure passage of the Whole Garment Liquid Penetration Test.

## **HANG-UP LOOP**

An 80-pound (36.3 kg) tear strength hang-up loop shall be provided at the interior collar seam. The loop shall be constructed of triple layers of the specified outer shell material, lock stitched to the coat. Webbing is not acceptable.

## **SLEEVES**

To prevent stove piping, the sleeves shall be individually graded by coat size and sleeve length. For maximum freedom, the sleeve design shall feature extra full cut one-piece set-in sleeves with built-in bellows. To reduce the chances of possible top seam failure in that high thermal exposure area, the sleeve Major seams shall follow the underside of the arm and shall not cross over the outside of the elbow joint. Sleeve seam and sleeve attachment to coat body in all layers shall be 100% double fold and double stitched for maximum strength (Major A seam requirement, previously defined in this specification).

## **INNER WRISTLET & WATERWELL**

Every coat shall feature a minimum 4.5-inch (11.4-cm) long, double-layer 100% Nomex knit inner wristlets protected by a flame-resistant and moisture-resistant inner water well. The inner wristlet shall be sewn to the thermal liner sleeve end (not to the outer shell). The specified moisture barrier shall form an inner water well with an elastic gather sewn to the moisture barrier sleeve end. The water well shall pass the NFPA 1971 Whole Garment Liquid Penetration Test. The thermal liner shall be bar tacked and seam sealed to prevent liner pullout. This inner water well assembly shall be interface capable with the appropriate glove to provide protection during the NFPA 1971 Whole Garment Liquid Penetration Test.

## **EXTERNAL WRISTLET**

Every coat shall feature a 2.5-inch (6.4 cm) long 100% Nomex knit outer wristlet, which shall be mounted to the end of each outer shell sleeve to prevent liquid and debris movement up the sleeve between the outer shell and the moisture barrier/ thermal liner assembly.

## **FRONT CLOSURE PROTECTIVE OVERLAP**

Two-inch-wide (5.1 cm-wide) panels of breathable moisture/pathogen barrier and specified thermal liner materials shall be provided at coat front closure facings to preclude any type of break in the protective envelope. The entire circumference of a closed coat shall consist of specified shell, moisture barrier and thermal liner materials.

The inside trailing edge of each 2-inch-wide (5.1-cm-wide) inner panel should have the breathable moisture/pathogen material wrapped around the edge by .5-inch (1.3-cm) to create an anti-wick guard to prevent soak through during the required NFPA 1971 Whole Garment Liquid Penetration Test. An additional layer of breathable moisture/ pathogen barrier material shall be sewn between the 2-inch-wide (5.1 cm-wide) panels and outer shell coat body for the entire length of coat front in a fashion to prevent liquid entry during the NFPA 1971 Whole Garment Liquid Penetration Test.

## **COMPOSITE MATERIALS**

The LFD has determined that the combination of materials found below is desired. Any exceptions to these materials shall be specifically detailed and alternates explained in the Offeror's proposal.

### **Outer shell**

7.5 oz; Plain Weave; 55% Kevlar / 37% PBI / 8% Filament Matrix - Bronze

### **Thermal lining**

7.1 oz. calendared 100% spun 3.3 oz. Meta Aramid facecloth; 1 layer of 2.3 oz. E-89, and one layer 1.5 oz. E-89 (Berry Compliant)

### **Moisture barrier**

Crosstech Black Type 2F 100% Nomex IIIA woven Pajama-check, 4.7 oz (Berry Compliant)

## **DEAD AIR PANEL**

The coat's composite shall have additional thermal enhancement in the shoulders, upper back (4" down from the crest of shoulders), upper chest (4" down from the crest of shoulder), and extending down the outside of the upper arm. The CCHR rating in this area shall not be less than 35 wet and 43 dry. When requested, the contractor shall provide ISO 17025 certified lab results and samples of designs they intend to submit. Design shall use three layers of one-inch wide, nine ounce Aramid attached side-by-side and spaced 2.25-inches on dead-center. Design shall not inhibit moisture vapor transmission. Comfort and flexibility of the system shall be used by trained LFD personnel to determine the design's acceptability.

## **RADIO POCKET**

The radio pocket shall be rectangular measuring 8" X 3½" X 1½". It shall have a flap measuring 4½" wide with a 1½" X 1½" hook fastener locked-stitched vertically on the flap for adjustment. The pocket flap shall have a layer of fire resistant Crosstech sandwiched between two layers of outer shell material and contain 2 notches, one on each side of the flap. The top of the flap shall be bar tacked at both ends, approximately 1" above the radio pocket. The radio pocket shall be equipped with one grommet for drainage. The interior of the radio pocket shall be lined with Crosstech MB and shall cover all sides of the pocket. The radio pocket shall be sewn to the storm flap, 8" down from the top and angled at 1 o'clock position.

Each radio pocket shall be bar tacked on all four corners for added strength.

## **MICROPHONE TAB**

The microphone tab shall be ¾" X 2½" long consisting of double layer outer shell and shall be installed with bar tacks. The mic tab shall be sewn to the storm flap 2" down and centered over the radio pocket flap.

## **RETRO-REFLECTIVE FLUORESCENT TRIM**

The trim shall be lock-stitched to the coat using two rows of stitch type 301 at the edge of the trim. For additional abrasion protection at the forearm, the outer shell Major A seam and trim is covered by a sewn on strip of polymer coated Kevlar material.

The trim type shall consist of the following:

### **Firefighters**

Scotchlite triple trim, 3" wide, yellow/silver/yellow.

### **Chiefs**

Scotchlite triple trim 3" wide, orange/silver/orange

Both Firefighters and Chiefs shall have the following NFPA (NYC Style) pattern consisting of:

- 1 Band around the Forearm on each coat sleeve
- 1 Circumferential band around chest and back below the armpits, with matching bands around each sleeve on the upper arms.
- 1 around entire circumference of the coat hem.

## **COAT CUSTOM OPTIONS TO BE PROVIDED**

Instructions in this custom options section that contradict earlier specifications or statements supersede those earlier specifications or statements as long as the required certifications are not compromised.

### **Firefighter**

Std -Inspection Port Liner

Std -Liner Detachable

Std -SET Thermal Enhancement

Std -Liner Label Pocket

Std -Take Up Straps - 2 Postman

Take Up Straps Placed Above Pockets

NY Metro Style DRD in a New Coat

Delete Snaps from FDNY Metro Garage

Trim -(4) NEW YORK -lime 2-tone Scotchlite (3")

Trim -double stitched

Back Patch - Advance - Black

<LYNCHBURG

FIRE DEPT.>

17 -2" sewn letters -lime Scotchlite

Sewn Periods

Hem Patch w/Velcro - Advance - Black

FF LAST NAME (1st INITIAL when specified) - avg. 7 letters - OK to use 2" letters to fit 7 -3" sewn letters -lime Scotchlite

Embroidered American Flag - left sleeve

Integral Customization - Lynchburg Fire Dept Patch - right sleeve

2" Velcro/Zipper Coat Closure

Split Velcro On Closure for Positive Closure RRS

LTO Comfort Chinstrap

Black Knit Material on Comfort Chinstrap

Dead Air Panels

Coat Cuffs - Arashield - Black

Half Hi Bellows Pockets - Gemini XT - Bronze - 7" x 9" x 1.5"

E Z Grip Flaps - Arashield - Black

Handwarmers behind Bellows Pockets - Fleece

Lined with Kevlar  
Bartack All 4 Corners of Bellows Pockets  
Mic Tab - Gemini XT - Bronze - on shield (stormflap) - 3/4" x 2.5"  
Place 2" below top of shield - place towards left edge of shield  
Large Hook on a Patch w/Velcro Strap - Gemini XT - Bronze - left chest  
Radio Pocket - Gemini XT - Bronze - right chest - 8 x 3.5 x 2  
Bartack All 4 Corners - right chest  
Notch Flap -Left - right chest  
SnapTabs at Bottom, Sides & Back  
Sub Wristlets -Long Hybrid with tabs -Nomex - black

### **Chiefs**

Std -Inspection Port Liner  
Std -Liner Detachable  
Std -SET Thermal Enhancement  
Std -Liner Label Pocket  
Std -Take Up Straps - 2 Postman  
Take Up Straps Placed Above Pockets  
NY Metro Style DRD in a New Coat  
Delete Snaps from FDNY Metro Garage  
Trim -(4) NEW YORK -ORANGE 2-tone Scotchlite (3")  
Trim -double stitched  
Back Patch - Advance - Black  
    <LYNCHBURG  
    FIRE DEPT.>  
17 -2" sewn letters -ORANGE Scotchlite  
Sewn Periods  
Hem Patch w/Velcro - Advance - Black  
FF LAST NAME (1st INITIAL when specified) - avg. 7 letters - OK to use 2" letters to fit 7 -3"  
sewn letters -ORANGE Scotchlite  
Embroidered American Flag - left sleeve  
Integral Customization - Lynchburg Fire Dept Patch - right sleeve  
2" Velcro/Zipper Coat Closure  
Split Velcro On Closure for Positive Closure RRS  
LTO Comfort Chinstrap  
Black Knit Material on Comfort Chinstrap  
Dead Air Panels  
Coat Cuffs - Arashield - Black  
Half Hi Bellows Pockets - Gemini XT - Bronze - 7" x 9" x 1.5"  
E Z Grip Flaps - Arashield - Black  
Handwarmers behind Bellows Pockets - Fleece  
Lined with Kevlar  
Bartack All 4 Corners of Bellows Pockets  
Mic Tab - Gemini XT - Bronze - on shield (stormflap) - 3/4" x 2.5"  
Place 2" below top of shield - place towards left edge of shield  
Large Hook on a Patch w/Velcro Strap - Gemini XT - Bronze - left chest  
Radio Pocket - Gemini XT - Bronze - right chest - 7 x 3.5 x 2  
Bartack All 4 Corners - right chest  
Notch Flap -Left - right chest  
SnapTabs at Bottom, Sides & Back  
Sub Wristlets -Long Hybrid with tabs -Nomex - black

# **PANT SPECIFICATION DETAILS**

## **DESIGN CONCEPT (STYLING)**

The pant shall be of a traditional waist-high-only design to facilitate full torso ventilation of front, rear and sides of trunk for maximum body cooling effect to help minimize firefighter heat stress. For this reason, other than waist-high pants will not be considered acceptable or “equal,” since additional trunk wrapping traps heat and moisture, increasing heat stress buildup while also creating mechanical resistance when covering the natural torso flexion point of the waist.

## **PATTERNING CONCEPT**

Garments shall feature a tailored four-piece outer shell with a two-piece moisture barrier and lining. In addition, it shall include a one-piece, over-sized crotch diamond pattern in the outer shell, moisture barrier and thermal liner. A pant with a four-piece moisture barrier and thermal liner shall be provided, at no additional charge, when and if an individual’s tailoring needs require it.

## **PATTERNING REQUIREMENTS**

To assure maximum freedom of movement and reduced kinetic resistance with minimum garment weight and bulk, the pants patterning shall:

1. Incorporate hydraulic, swivel action leg-to-torso interfaces.
2. Incorporate an oversized diamond-shaped crotch insert, graded according to size, for maximum action stride, optimum stepping reach and no “in-crotch” seaming.
3. In the outer seam hip area, in all three layers shall, incorporate convex seam technology to provide for generous seat expansion when squatting and crawling without creating unsightly bagginess.
4. That the diamond extend from just above the left knee to just above the right knee, and be centered equally from front to rear. Width of diamond at top of crotch shall be approximately proportionally graded to waist size and inseam length.
5. Ensure that pants rest in normal body line balance of 22 inches (55.9 cm) center distance at the cuff for 42 waist, 30 inseam pants.
6. Provide for an alteration point at the hips so that during manufacture the hip dimension can be adjustable in two-inch (5.0cm) increments
7. Meet individual tailoring needs, and offer superior functionality. Diamond should extend from just above the left knee to just above the right knee, and be centered equally from front to rear. Width of diamond at top of the crotch should be approximately 4” (10.2 cm), graded to size.

## **SUSPENDER BUTTONS**

Eight (8) heavy duty, rust-resistant suspender buttons shall be positioned around the waist. Suspender buttons shall be mounted through waistband of triple layer outer shell material that is internally reinforced with an additional band of coated needle punch aramid.

## **LINER ATTACHMENT**

The moisture barrier and thermal liner assembly shall be attached to the outer shell at the waistband with seven (7) evenly-spaced glove snaps.

Liners shall be attached at the cuff by means of snaps on two (2) sets per leg of Nomex<sup>®</sup> tabbing per liner cuff. The male and female snap parts shall both be located on Nomex tabbing that is sewn to the liner at the cuff. A separate piece of Nomex tabbing shall be sewn to the shell cuff and fashioned as a loop without any snap hardware.

The liner system design shall not allow products of combustion or other contaminants to move into the liner interior between the moisture barrier and thermal liner. For instance, separately hemmed and bar tacked liner and moisture barrier with open edge designs would not be acceptable.

## **PANT CERTIFICATION LABEL ON LINER**

The pant certification label on the liner shall be integrally printed on FR Cotton Indura<sup>®</sup> affixed and lock stitched to the inside the inner left hip area of the liner.

## **PANT CERTIFICATION LABEL ON SHELL**

The pant label on the shell shall be integrally printed on FR Cotton Indura<sup>®</sup> affixed and lock stitched to the facing at the fly.

## **FLY FRONT**

The outer shell fly shall be lock stitched to the left side of the front opening and shall be in proportion to waist size and crotch rise in both length and width. Fly inner lining shall extend at least 2 inches (5.1 cm) to the left of the outer shell fly attachment seam and shall be constructed of certified breathable moisture barrier and thermal liner. The right front pant opening shall have an internal facing extending at least 2 inches (5.1 cm) to the right and constructed of specified fabric. In combination with the liner, the system shall offer 360-degree protection without gaps during movement of the outer shell moisture barrier and thermal liner. Closure shall be by means of a minimum 1.5-inch-wide (3.8-cm-wide) hook and loop fastener, and all construction techniques used shall provide liquid penetration protection under the NFPA 1971 Whole Garment Liquid Penetration Test. The fly shall be graded to the waist size of garments and crotch rise.

Pants shall have a 2" fly with a hook and dee primary closure, and a hook and loop secondary closure.

## **TRIM**

The trim shall consist of a single band of retro-reflective trim double stitched around the lower pant leg. The trim shall be double stitched to the pant at both edges of the trim. For additional abrasion protection, the trim on inseam, is covered by a sewn on strip of polymer coated Kevlar material laid on top of the Major A seam.

## **REINFORCED CUSHIONED KNEE, HEAT CHANNEL (BIFLEX TYPE)**

The heat knee area shall be provided with increased thermal protection consisting of one (1) layer of polymer coated Kevlar material covering multiple layers of 9.0 ounce, Aramid batt style insulating and cushioning material. These knees shall consist of 9 horizontal corrugations down the center to allow for ease of bending while still providing an extra high level of protection. At the sides of each pad vertical corrugations of specified outer shell material will allow the knee padding to wrap around the cylindrical

shape of the leg. Pads shall measure approximately 13” high by 9” wide, and sewn onto the knee area of the outer shell.

The cushioning for the knee reinforcement, and thermal pad sewn to the internal side of the thermal liner assembly, should provide a minimum of 25 Compressive Conductive Heat Resistance (CCHR).

### **DYNA-FIT STYLE SUSPENDERS WITH SNAP ATTACHMENT, QUICK ADJUSTMENT FEATURE, AND PADDING**

The suspenders shall be attached to the front and back of the pants by four (4) single layer 2” wide elastic straps assembled at each of the four (4) circular connectors located at the ends of the front and back of the suspender. At each end of the elastic straps, male and female snaps are installed to attach the suspender to the pant. The design shall then provide four (4) loops attached at the waist of the pant with bar tacks. The back of the suspenders shall be “Free floating,” crossover shall be accomplished by threading the right and left suspender body through fabric loops constructed as part of the rear and lower suspender body. The rear lower suspender shall be in 2” wide webbing. The suspenders shall be adjustable by means of a 2” wide slider buckles at the front of the suspenders. The suspenders shall contain quick adjust and padding.

### **BELLOWS POCKETS**

Centered over the outer seam of the right and left leg, lock stitched twice with Nomex thread, provide 9”H X 9”W X 1½”D shell full bellows pockets; lined with 8 oz. Kevlar twill with the bottom exterior 5” of the pocket body reinforced with black polymer coated Arashield type material.

Pockets body and flaps will be bar tacked at all corners with the leading edge of the flaps providing black polymer coated Arashield type material for reinforcements with oversized grip edges provided by folded Kevlar roping encased along the leading edge. The Pocket Flap shall close by 12” Velcro pile sewn on the underside of the flap with 2” Velcro hook at the upper corners of the pocket body, Velcro attachment will be double row lock stitching.

- Inside the right bellows pocket, on the pant leg, provide a 6” high, lock stitched on, Kevlar twill, patch style tool holder, divided 50/50 front to rear.
- Centered on the tool holder shall be a 6”H X 3” W Kevlar twill tool/pencil slot.

### **PANT CUFFS**

Pant Cuffs shall be notched 1.5” higher at the rear in all three layers and shall be reinforced in the high wear areas with Black Arashield type material attached using lock stitching method.

### **TAKE UP STRAPS**

At the right and left sides of the pant waist, provide outer shell straps with postman slide buckles configured to operate with a forward pulling motion of the hands.

### **COMPOSITE MATERIALS**

LFD has determined that the combination of materials found below is desired. Any exceptions to these materials shall be specifically detailed and alternates explained in the Offeror’s proposal.

**Outer shell**

7.5 oz.; Plain Weave; 55% Kevlar / 37% PBI / 8% Filament Matrix - Bronze

**Thermal lining**

7.1 oz. calendared 100% spun 3.3 oz. Meta Aramid facecloth; 1 layer of 2.3 oz. E-89, and one layer 1.5 oz. E-89 (Berry Compliant)

**Moisture barrier**

CROSSTECH BLACK TYPE 2F 100%NOMEX LLLA WOVEN PAJAMA-CHECK, 4.7 OSY (BERRY COMPLIANT)

**PANT CUSTOM OPTIONS TO BE PROVIDED**

Instructions in this custom options section that contradict earlier specifications or statements supersede those earlier specifications or statements as long as the required certifications are not compromised.

**Firefighter**

Std -Inspection Port Liner

Std -Liner Detachable

Trim -(8) Cuff / Hi-viz Seam (450) -lime 2-tone Scotchlite (3")

Seam Trim to stop at bottom of bellows pockets Trim -cuff & seam - double stitched

Narrow Fly -2" Velcro w/ Hook & Dee

Angled Cuffs - Gemini XT - Bronze

Pant Cuffs - Arashield - Black

BiFlex Heat Channel Knees - Advance - Black

Horizontal Strips in BiFlex knees to be Arashield - Black

Take Up Straps - 2 Postman - Gemini XT - Bronze

Bellows Pockets - Gemini XT - Bronze - 9" x 9" x 1.5"

E Z Grip Flaps - Arashield - Black

Reinforced - 5" Ext. Arashield - Black

Full Kevlar Lined

Tool Divider - Kevlar

6" high - Place inside right bellows pocket at bottom - on pant portion NOT on pocket - divide into 2 equal compartments 2" Velcro on Bellows Pockets & Flaps

Bartack All 4 Corners of Bellows Pockets

Pencil Pocket - Kevlar - inside right bellows pocket-pant - 6" x 3"

Place centered at bottom of tool pocket divider Dyna-Fit Suspenders w/ Quick Adjust Installed Suspenders Padding

**Chief**

Std -Inspection Port Liner

Std -Liner Detachable

Trim -(8) Cuff / Hi-viz Seam (450) -orange 2-tone Scotchlite (3")

Seam Trim to stop at bottom of bellows pockets Trim -cuff & seam - double stitched

Narrow Fly -2" Velcro w/ Hook & Dee

Angled Cuffs - Gemini XT - Bronze

Pant Cuffs - Arashield - Black

BiFlex Heat Channel Knees - Advance - Black

Horizontal Strips in BiFlex knees to be Arashield - Black

Take Up Straps - 2 Postman - Gemini XT - Bronze

Bellows Pockets - Gemini XT - Bronze - 9" x 9" x 1.5"

E Z Grip Flaps - Arashield - Black

Reinforced - 5" Ext. Arashield - Black

Full Kevlar Lined

Tool Divider - Kevlar

6" high - Place inside right bellows pocket at bottom - on pant portion NOT on pocket - divide into 2 equal compartments 2" Velcro on Bellows Pockets & Flaps

Bartack All 4 Corners of Bellows Pockets

Pencil Pocket - Kevlar - inside right bellows pocket-pant - 6" x 3"

Place centered at bottom of tool pocket divider Dyna-Fit Suspenders w/ Quick Adjust Installed  
Suspender Padding

## ATTACHMENT B: PRICING SCHEDULE

Quantities shown below are estimated annual requirements of the City of Lynchburg, Fire Department.

ITEM #	QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	34 Each	Coats, Firefighter	\$	\$
Manufacturer and Part Number:				
2	34 Each	Pants, Firefighter	\$	\$
Manufacturer and Part Number:				
3	2 Each	Coats, Chief	\$	\$
Manufacturer and Part Number:				
4	2 Each	Pants, Chief	\$	\$
Manufacturer and Part Number:				
<b>GRAND TOTAL PRICE</b>				<b>\$</b>

In addition, the City of Lynchburg, Fire Department projects modifications may be required to future firefighting equipment, including Coats and Pants. To accommodate these changes, if approved by the City, please indicate % rate of discount from Catalog List Pricing for each item below. The purchase prices below are optional and are in no way a guarantee of purchase.

ITEM #	QTY	DESCRIPTION	% Discount from Catalog
1	Varies	Coats, Options	%
Manufacturer:			
2	Varies	Pants, Options	%
Manufacturer:			
3	68	Gloves	%
Manufacturer:			
4	68	Hoods	%
Manufacturer:			
5	68	Helmets	%
Manufacturer:			
6	68	Hoods	%
Manufacturer:			

## **ATTACHMENT C: FUNCTIONALITY AND PERFORMANCE TEST**

Testing will be three (3) professional firefighters (testing committee) from the Lynchburg Fire Department (LFD). Each committee member will test a set of the sample gear provided by each Offeror.

Two other professional firefighters (recording committee) will record the scoring from the testing committee members. The recording committee will also inspect the gear and score the wear.

Testing Procedures will be as follows:

1. Each member of the testing committee will be fitted by each Offeror for one set of turnout gear.
2. After receipt of the gear, each member will try on the gear for proper fit.
3. The gear will be weighed, washed, and dried for two cycles. The wash cycle will be the standard procedure performed by LFD during their annual gear washing.
4. Each member will try on the gear again to check for proper fit and to see if the gear has shrunk.
5. While wearing the gear and SCBA (off-air), the members will be performing the tasks listed below. To ensure fatigue is not a factor in the ratings, only one set of gear will be tested per day and the member will stop for no less than five minutes between tasks.

The Field test will be performed at **LFD PPE Evaluation Course, Central Virginia Regional Emergency Services Training Center – Training Tower**

**Location: 613 Training Center Road, Lynchburg, Virginia 24502**

- a. Activities performed during the field test will be:
    - i. Start at base of Tower, climb stairs to top floor.
    - ii. At top floor, pull hose bundle hand over hand with rope to top floor.
    - iii. Return to second floor with hose bundle to Kaisor Sled.
    - iv. Lay bundle down, strike block until it moves past appropriate mark with sledgehammer.
    - v. Move outside and complete flat raise and lower of extension ladder.
    - vi. Move to pipe and crawl through pipe.
    - vii. Return to base of tower.
  - b. A primary search of each level of the burn building (located in Lynchburg, VA) will be performed by crawling on hands and knees.
  - c. Cut metal with rotary saw at low level.
  - d. Chock an overhead sprinkler head.
6. After testing, the gear will be weighed, washed, and dried. The wash cycle will be the standard procedure performed by LFD during their annual gear washing.
  7. Each member will try on the gear again to check for proper fit and to see if the gear has shrunk.

**Scoring Sheet**

**Testing Committee Member Name:** \_\_\_\_\_

**Turnout Gear Brand Tested:** \_\_\_\_\_

**Date of Test:** \_\_\_\_\_

**SCORE**

1. Did the gear fit when it first arrived? Rank 0 – 10 with 0 being Being the least fitting and 10 being the best fitting. \_\_\_\_\_
2. Did the gear fit after two washing and drying cycles? Rank 0 to 10 With 0 being the least fitting and 10 being the best fitting. \_\_\_\_\_
3. Did the gear allow for proper movement when climbing or descending stairs? Rank 0 to 10 with 0 being very restricted movement and 10 being no limit to movement. \_\_\_\_\_
4. Did the gear allow for proper movement when conducting the primary Search? Rank 0 to 10 with 0 being very restricted movement and 10 being no limit to movement. \_\_\_\_\_
5. Did the gear allow for proper movement when pulling and pushing the ceiling? Rank 0 to 10 with 0 being very restricted movement and 10 being no limit to movement. \_\_\_\_\_
6. Did the gear allow for proper movement when cutting with the rotary Saw? Rank 0 to 10 with 0 being very restrictive movement and 10 being no limit to movement. \_\_\_\_\_
7. Did the gear allow for proper movement when chocking the sprinkler head? Rank 0 to 10 with 0 being very restrictive movement and 10 being no limit to movement. \_\_\_\_\_
8. Did the gear absorb water when chocking the sprinkler head? Rank 0 to 10 with 0 being much saturation of water and 10 being no saturation of water. \_\_\_\_\_
9. Did the gear fit after the final washing and drying cycle? Rank 0 to 10 With 0 being the least fitting and 10 being the best fitting. \_\_\_\_\_
10. How did the gear wear? Rank 0 to 10 with 0 being the most wear and 10 being the least wear. \_\_\_\_\_

**TOTAL SCORE:** \_\_\_\_\_