


# Master Purchase Order

<b>DO NOT INVOICE TO THIS ADDRESS</b>		Master Purchase Order No.		0297A0114		
<b>City &amp; County of Denver</b>		Date:	May 27, 2014	Revision No.		
Purchasing Division		Payment Terms	Net 30	Ordinance	(as applicable):	
201 West Colfax Avenue, Dept. 304		Freight Terms	DESTINATION			
Denver, CO 80202		Ship Via	Ground / Onsite			
United States		Buyer:	Jessica Skibo			
Phone: 720-913-8100 Fax: 720-913-8101		Phone:	720-913-8110			

Vendor: 0000041153      Phone: 800-688-6148      Fax: 937-264-2677      E-Mail: [Jim.walter@honeywell.com](mailto:Jim.walter@honeywell.com)

MorningPride Manufacturing LLC  
d.b.a. Honeywell First Responder Products  
#1 Innovation Court  
Dayton, OH 45414  
Attn: Amy Dozer

Ship To: Denver Fire Department  
Designated Facility at time of Order

Bill To: Denver Fire Department  
745 W. Colfax  
Denver, CO 80204

**1. Goods/Services:**

MorningPride Manufacturing, LLC d.b.a. Honeywell First Responder Products, a Corporation, (“Vendor”) shall provide the goods, and any services related thereto, identified and described on attached **Exhibit A**, to the City and County of Denver, a Colorado municipal corporation (the “City”), all in accordance with the terms and conditions of this Master Purchase Order.

**2. Ordering:**

The City shall purchase one or more of the goods/services by issuing a written purchase order(s) or similar appropriate written document (“Order”), each of which will be deemed incorporated into this Agreement for purposes of such Order only.

**3. Pricing:**

The pricing/rates for the goods/services is contained on **Exhibit A** and shall be held firm for the term of this Master Purchase Order.

**4. Term:**

The term of this Master Purchase Order shall run from June 8, 2014 to and including June 8, 2016.

**5. Extension or Renewal:**

The City and County of Denver reserves the right to renew and extend the Master Purchase Order, upon mutual agreement between the City and County of Denver and the vendor for additional one (1) year periods but not to exceed three (3) additional years.

**6. Non-Exclusive:**

This Master Purchase Order is non-exclusive. City does not guarantee any minimum purchase other than as provided herein.

**7. Inspection and Acceptance:**

City may inspect all goods/services prior to acceptance. Payment does not constitute acceptance. Vendor shall bear the cost of any inspection/testing that reveal goods/services that are defective or do not meet specifications. City’s failure to accept or reject goods/services shall not relieve Vendor from its responsibility for such goods/services that are defective or do not meet specifications nor impose liability on City for such goods/services. If any part of the goods/services are not acceptable to City, City may, in addition to any other rights it may have at law or in equity: (1) make a warranty claim; (2) repair and/or replace the goods or substitute other services at Vendor’s expense; or (3) reject and return the goods at Vendor’s cost and/or reject the services at Vendor’s expense for full credit. Any rejected goods/services are not to be replaced without written authorization from City, and any such replacement shall be on the same terms and conditions contained in this Master Purchase Order. Vendor shall perform all services in accordance with the standard of care exercised by highly competent vendors who perform like or similar services.

**8. Shipping, Taxes and Other Credits and Charges:**

All pricing is F.O.B. destination unless otherwise specified. Shipments must be marked with Vendor’s name, the Master Purchase Order number, and contain a delivery or packing slip. Vendor shall not impose any charges for boxing, crating, parcel post, insurance, handling, freight, express or other similar charges or fees. Vendor shall notify City in writing of any price decreases immediately, and City shall receive the benefit thereof on all unshipped items. Vendor shall comply with any additional delivery terms specified herein. Vendor shall be responsible for the cleanup and reporting of any contamination (environmental or otherwise) or spillage resulting from the delivery and/or unloading of goods within twenty-four (24) hours of the contamination or spillage or sooner if required by law. Vendor shall procure all permits and licenses; pay all charges, taxes and fees; and give all notices necessary and incidental to the fulfillment of this Master Purchase Order and all cost thereof have been included in the prices contained herein. City shall not be liable for the payment of taxes, late charges or penalties of any nature, except as required by D.R.M.C. § 20-107, et seq. The price of all goods/services shall reflect all applicable tax exemptions. City’s Federal Registration No. is 84-6000580 and its State Registration No. is 98-02890. Vendor shall pay all sales and use taxes levied by City on any tangible personal property built into the goods/services. Vendor shall obtain a Certificate of Exemption from the State of Colorado Department of Revenue prior to the purchase of any materials to be built into the goods/services and provide a copy of the Certificate to City prior to final payment.

**9. Risk of Loss:**

Vendor shall bear the risk of loss, injury or destruction of goods prior to delivery to City. Loss, injury or destruction shall not release Vendor from any obligation hereunder.

**10. Invoice:**

Each invoice shall include: (i) the Master Purchase Order number; (ii) individual itemization of the goods/services; (iii) per unit price, extended and totaled; (iv) quantity ordered, back ordered and shipped; (v) an invoice number and date; (vi) ordering department's name and "ship to" address; and (vii) agreed upon payment terms set forth herein.

**11. Payment:**

Payment shall be subject to City's Prompt Payment Ordinance D.R.M.C. § 20-107, et-seq. after City accepts the goods/services. Any other provision of this Agreement notwithstanding, in no event shall the City be liable for aggregate payments under this Master Purchase Order in excess of One-Million Dollars (\$1,000,000.00). The Vendor acknowledges that any goods/services provided beyond those specifically described in **Exhibit A** are performed at Contractor's risk and without authorization from the City. City's payment obligations hereunder, whether direct or contingent, shall extend only to funds appropriated by the Denver City Council for the purpose of this Master Purchase Order, encumbered by the City after receipt of Vendor's invoice and paid into the Treasury of City. Vendor acknowledges that: (i) City does not by this Master Purchase Order, irrevocably pledge present cash reserves for payments in future fiscal years; and (ii) this Master Purchase Order is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of City. City may setoff against any payments due to Vendor any claims and/or credits it may have against Vendor under this Master Purchase Order.

**12. Amendments/Changes:**

Only the Manager of General Services or his delegate is authorized to change or amend this Master Purchase Order by a formal written change order. Any change or amendment that would cause the aggregate payable under this Master Purchase Order to exceed the amount appropriated and encumbered for this Master Purchase Order is expressly prohibited and of no effect. Vendor shall verify that the amount appropriated and encumbered is sufficient to cover any increase in cost due to changes or amendments. Goods/services provided without such verification are provided at Vendor's risk. The Vendor has no authority to bind City on any contractual matters.

**13. Warranty:**

Vendor warrants and guarantees to City that all goods furnished under this Master Purchase Order are free from defects in workmanship and materials, are merchantable, and fit for the purposes for which they are to be used. For any goods furnished under this Master Purchase Order which become defective within twelve (12) months (unless otherwise specified) after date of receipt by City, Vendor shall either, at City's election and to City's satisfaction, remedy any and all defects or replace the defective goods at no expense to City within seven (7) days of receipt of the defective goods or accept the defective goods for full credit and payment of any return shipping charges. Vendor shall be fully responsible for any and all warranty work, regardless of third party warranty coverage. Vendor shall furnish additional or replacement parts at the same prices, conditions and specifications delineated herein.

**14. Indemnification/Limitation of Liability:**

Vendor shall indemnify and hold harmless City (including but not limited to its employees, elected and appointed officials, agents and representatives) against any and all losses (including without limitation, loss of use and costs of cover), liability, damage, claims, demands, actions and/or proceedings and all costs and expenses connected therewith (including without limitation attorneys' fees) that arise out of or relate to any claim of infringement of patent, trademark, copyright, trade secret or other intellectual property right related to this Master Purchase Order or that are caused by or the result of any act or omission of Vendor, its agents, suppliers, employees, or representatives. Vendor's obligation shall not apply to any liability or damages which result solely from the negligence of City. City shall not be liable for any consequential, incidental, indirect, special, reliance, or punitive damages or for any lost profits or revenues, regardless of the legal theory under which such liability is asserted. In no event shall City's aggregate liability exceed the agreed upon cost for those goods/services that have been accepted by City under this Master Purchase Order. Notwithstanding anything contained in this Master Purchase Order to the contrary, City in no way limits or waives the rights, immunities and protections provided by C.R.S. § 24-10-101, et seq.

**15. Termination:**

City may terminate this Master Purchase Order, in whole or in part, at any time and for any reason immediately upon written notice to Vendor. In the event of such a termination, City's sole liability shall be limited to payment of the amount due for the goods/services accepted by City. Vendor acknowledges the risks inherent in this termination for convenience and expressly accepts them. Termination by City shall not constitute a waiver of any claims City may have against Vendor.

**16. Interference:**

Vendor shall notify the Director of Purchasing immediately of any condition that may interfere with the performance of Vendor's obligations under this Master Purchase Order and confirm such notification in writing within twenty-four (24) hours. City's failure to respond to any such notice shall in no way act as a waiver of any rights or remedies City may possess.

**17. Venue, Choice of Law and Disputes:**

Venue for all legal actions shall lie in the District Court in and for City and County of Denver, State of Colorado, and shall be governed by the laws of the State of Colorado as well as the Charter and Revised Municipal Code, rules, regulations, Executive Orders, and fiscal rules of City. All disputes shall be resolved by administrative hearing, pursuant to the procedure established by D.R.M.C. § 56-106. Director of Purchasing shall render the final determination.

**18. Assignment/No Third Party Beneficiary:**

Vendor shall not assign or subcontract any of its rights or obligations under this Master Purchase Order without the written consent of City. In the event City permits an assignment or subcontract, Vendor shall continue to be liable under this Master

Purchase Order and any permitted assignee or subcontractor shall be bound by the terms and conditions contained herein. This Master Purchase Order is intended solely for the benefit of City and Vendor with no third party beneficiaries

**19. Notice:**

Notices shall be made by Vendor to the Director of Purchasing and by City to Vendor at the addresses provided herein, in writing sent registered, return receipt requested.

**20. Compliance With Laws:**

Vendor shall observe and comply with all federal, state, county, city and other laws, codes, ordinances, rules, regulations and executive orders related to its performance under this Master Purchase Order. City may immediately terminate this Master Purchase Order, in whole or in part, if Vendor or an employee is convicted, plead nolo contendere, or admits culpability to a criminal offense of bribery, kickbacks, collusive bidding, bid-rigging, antitrust, fraud, undue influence, theft, racketeering, extortion or any offense of a similar nature.

**21. Insurance:**

Vendor shall secure, before delivery of any goods/services, the following insurance covering all operations, goods and services provided to City. Vendor shall keep the required insurance coverage in force at all times during the term of the Purchase Order, or any extension thereof, during any warranty period, and for three (3) years after termination of this Purchase Order. The required insurance shall be underwritten by an insurer licensed to do business in Colorado and rated by A.M. Best Company as "A-"VIII or better. Each policy shall contain a valid provision or endorsement requiring notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, contractor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. If any policy is in excess of a deductible or self-insured retention, City must be notified by Vendor. Vendor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Purchase Order are the minimum requirements, and these requirements do not lessen or limit the liability of Vendor. Vendor shall provide a copy of this Purchase Order to its insurance agent or broker. Vendor may not commence services or work relating to the Purchase Order prior to placement of coverage. Contractor certifies that the attached certificate of insurance attached to the Purchase Order documents, preferably an ACORD certificate, complies with all insurance requirements of this Purchase Order. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Purchase Order shall not act as a waiver of Vendor's breach of this Purchase Order or any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, in the form of endorsements. Vendor's insurer shall name as Additional Insured to its Commercial General Liability and Business Auto Liability policies the City and County of Denver, its elected and appointed officials, employees and volunteers. Vendor's insurer shall waive subrogation rights against the City. All sub-contractors and sub-consultants (including independent contractors, suppliers or other entities providing goods/services required by this Purchase Order) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of Vendor. Vendor shall include all such entities as insureds under its policies or shall ensure that they all maintain the required coverages. Vendor shall provide proof of insurance for all such entities upon request by City. For Worker's Compensation Insurance, Vendor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 for each bodily injury occurrence claim, \$100,000 for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. Vendor expressly represents to City, as a material representation upon which City is relying, that none of the Vendor's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Purchase Order, and that any such rejections previously effected, have been revoked. Vendor shall maintain Commercial General Liability coverage with limits of \$1,000,000 for each occurrence, \$1,000,000 for each personal and advertising injury claim, \$2,000,000 products and completed operations aggregate, and \$2,000,000 policy aggregate. Vendor shall maintain Business Auto Liability coverage with limits of \$1,000,000 combined single limit applicable to all owned, hired and non-hired vehicles used in performing services under this Purchase Order. For Commercial General Liability coverage, the policy must provide the following: (i) That this Purchase Order is an Insured Contract under the policy; (ii) A severability of interests, separation of insureds or cross liability provision; and (iii) A provision that coverage is non-contributory with other coverage or self-insurance provided by City. For claims-made coverage, the retroactive date must be on or before the first date when any goods or services were provided to City. Vendor must advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Contractor will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

**22. Severability:**

If any provision of this Master Purchase Order, except for the provisions requiring appropriation and encumbering of funds and limiting the total amount payable by City, is held to be invalid, illegal or unenforceable by a court of competent jurisdiction, the validity of the remaining portions or provisions shall not be affected if the intent of City and Vendor can be fulfilled.

**23. Survival:**

All terms and conditions of this Master Purchase Order which by their nature must survive termination/expiration shall so survive. Without limiting the foregoing, Vendor's insurance, warranty and indemnity obligations shall survive for the relevant warranty or statutes of limitation period plus the time necessary to fully resolve any claims, matters or actions begun within that period. Bonds shall survive as long as any warranty period.

**24. No Construction Against Drafting Party:**

No provision of this Master Purchase Order shall be construed against the drafter.

**25. Status of Vendor/Ownership of Work Product:**

Vendor is an independent contractor retained on a contractual basis to perform services for a limited period of time as described in Section 9.1.1E(x) of the Charter of City. Vendor and its employees are not employees or officers of City under Chapter 18 of the D.R.M.C. for any purpose whatsoever. All goods, deliverables, hardware, software, plans, drawings, reports, submittals and all other documents or things furnished to City by Vendor shall become and are the property of City, without restriction.

**26. Records and Audits:**

Vendor shall maintain for three (3) years after final payment hereunder, all pertinent books, documents, papers and records of Vendor involving transactions related to this Master Purchase Order, and City shall have the right to inspect and copy the same.

**27. Remedies/Waiver:**

No remedy specified herein shall limit any other rights and remedies of City at law or in equity. No waiver of any breach shall be construed as a waiver of any other breach.

**28. No Discrimination in Employment:**

Vendor shall not refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability; and Vendor shall insert the foregoing provision in any subcontracts hereunder.

**29. Use, Possession or Sale of Alcohol or Drugs:**

Vendor shall cooperate and comply with the provisions of Executive Order 94. Violation may result in City terminating this Master Purchase Order or barring Vendor from City facilities or from participating in City operations.

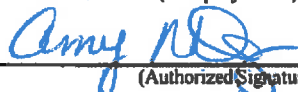
**30. Conflict of Interest:**


No employee of City shall have any personal or beneficial interest in the goods/services described in this Master Purchase Order; and Vendor shall not hire or contract for services any employee or officer of City which would be in violation of City's Code of Ethics, D.R.M.C. §2-51, et seq. or the Charter §§ 1.2.8, 1.2.9, and 1.2.12.

This Master Purchase Order is acknowledged and agreed to by:

City & County of Denver, Purchasing Division

Vendor Name: Morning Pride Mfg LLC dba Honeywell  
(Company Name) First Responder Products

By:   
(Authorized Signature)

By: 

Print Name: Amy N Dozier

Print Name: Jessica Skibo

Title: Contract Admin

Title: Senior Buyer

Date: May 29, 2014

Date: May 30, 2014

EXHIBIT "A"

Vendor: Honeywell First Responder Products  
Title: DENVER FIRE DEPARTMENT BUNKER GEAR  
Master Purchase Order No.: FIRE\_BUNKERGEAR0297A

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**It is recommended that you use your Master Purchase Order No. – 0297A0114, in all future correspondence, billing, invoicing or other communications.**

Description of the goods, and services related thereto, being purchased and pricing:

**ESTIMATED QUANTITIES:**

Quantities listed are the City and County of Denver's best estimate and do not obligate the Quartermaster to order or accept more than City and County of Denver's actual requirements during the period of this agreement, as determined by actual needs and availability of appropriated funds. It is expressly understood and agreed that this MPO is to supply the City with its complete actual requirement of the materials specified for the contract period.

**ORDERING:**

This Master Purchase Order is established for the Denver Fire Department to order items as needed. The department may order in a quantity of One (1) in the unit of measure indicated, and if no unit of measure is indicated, will be ordering in individual item quantities and shall NOT be bound to a case or minimum order quantity.

**F.O.B. POINT:**

All prices quoted must be quoted at a firm price F.O.B. Denver, Colorado, delivered to various locations around the City and County of Denver, including Denver International Airport.

**DELIVERY CONSIDERATIONS:**

For all item other than Turnout Coat and Pant, deliveries are to be made as soon as possible after orders are placed and are anticipated within a 14 calendar day period.

For Turnout Coat and Pant, the City requires:

- 14 calendar days for an onsite measuring appointment
- 45 calendar days for the delivery of replacement ensembles
- 60 calendar days for the delivery of larger orders for Academy requirements

Failure to deliver by the required delivery day may be cause for the City and Denver Fire Department to exercise the Service Credits.

**SERVICE CREDITS:**

If the vendor fails to deliver the supplies or perform the services within the time specified in his/her contract, or any extension thereof, the actual damages to the City for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages, the vendor shall pay to the City as fixed, agreed service credits for each calendar day of delay, the amount of \$25.00/ per Ensemble per business day, not to exceed the cost of the ensemble, and \$1/per Item per business day for all other items, deducted from the anticipated invoice or any outstanding invoices. The City may terminate this contract in whole or in part as provided in the "Default" provision. In that event, the vendor shall be liable for such service credits accruing until such time as the City may reasonably obtain delivery or performance of similar supplies and services. The vendor shall not be charged with service credits when the delay arises out of causes beyond the control and without the fault or negligence of the vendor. The Vendor is required to communicate any delay prior to delivery date to mitigate potential for service credits to be assessed.

**WARRANTY GUARANTEE:**

Vendor shall be fully responsible for any and all warranty work, regardless of whether or not manufacturers of equipment, and/or its component parts, provide the actual warranty coverage. In addition, vendor shall have or establish a single,

local source that will accomplish or coordinate any necessary warranty work. Vendor shall respond to requests for warranty assistance within twenty-four (24) hours.

**WARRANTY:**

Specify the vendor or dealership where warranty work will be done:

Vendor: Current ISP – Marken Enterprises

Address: 81 W. Mayflower Ave.

City, State and Zip Code: North Las Vegas, NV 89030

**PATENTS:**

Seller agrees to defend the City and County of Denver at seller's own expense, in all suits, actions or proceedings in which the City and County of Denver is made a defendant for actual or alleged infringement of any United States of America or foreign letters patent resulting from the City and County of Denver's use of the goods purchased as a result of this Invitation for Proposal. Seller further agrees to pay and discharge any and all judgments or decrees which may be rendered in any such suit, action or proceeding against the City and County of Denver.

Seller agrees to indemnify and hold harmless the City and County of Denver from any and all license, royalty and proprietary fees or costs, including legal costs, which may arise out of the City and County of Denver's purchase and use of goods supplied by the seller.

It is expressly agreed by seller that these covenants are irrevocable and perpetual.

**AIRPORT SECURITY:**

It is a material requirement of this Contract that the Vendor shall comply with all rules, regulations, written policies and authorized directives from the City and/or the Transportation Security Administration with respect to Airport security. The Vendor shall conduct all of its activities at the Airport in compliance with the Airport security program, which is administered by the Security Section of the Airport Operations Division, Department of Aviation. Violation by the Vendor or any of its employees, subcontractors, and vendors of any rule, regulation, or authorized directive from the City or the Transportation Security Administration with respect to Airport Security shall be grounds for immediate termination by the City of this Contract for cause.

The Vendor shall promptly upon notice of award of this Contract, meet with the Airport's Assistant Security Manager to establish badging and vehicle permit requirements for Vendor's operations under this Contract. The Vendor shall obtain the proper access authorizations for all of its employees, subcontractors, and vendors who will enter the Airport to perform work or make deliveries, and shall be responsible for each such person's compliance with all Airport rules and regulations, including without limitation those pertaining to security. Any person who violates such rules may be subject to revocation of his/her access authorization. The failure of the Vendor or any subcontractor to complete any required services hereunder shall not be excused on account of the revocation for good cause of access authorization of any person.

The security status of the Airport is subject to change without notice. If the security status of the Airport changes at any time during the term of this Contract, the Vendor shall take immediate steps to comply with security modifications which occur as a result of the changed status. The Vendor may at any time obtain current information from the Airport Security Office regarding the Airport's security status in relation to the Vendor's operations at the Airport.

The Vendor shall return to the City at the expiration or termination of this Contract, or upon demand by the City, all access keys or access badges issued to it for any area of the Airport, whether or not restricted. If the Vendor fails to do so, the Consultant shall be liable to reimburse the City for all the City's costs for work required to prevent compromise of the Airport security system. The City may withhold funds in the amount of such costs from any amounts due and payable to the Vendor under this Contract.

**LAWS, REGULATIONS, TAXES AND PERMITS**

The Vendor shall procure all permits and licenses, pay all charges, taxes and fees and give all notices necessary and incidental to the due and lawful prosecution of the work. All costs thereof shall be deemed to be included in the prices proposed for the work.

The Vendor, at all times, shall observe and comply with all federal, state, county, city and other laws, codes, ordinances, rules and regulations in any manner affecting the conduct of the work.

Without limiting the foregoing, the Vendor shall establish appropriate procedures and controls so that services under this Contract will not be performed by using any alien who is not legally eligible for such employment under United States Immigration laws. Failure to comply with this condition satisfactorily may cause the City to terminate this Contract.

**EMERGENCY PURCHASES:**

The City and County of Denver reserves the right to purchase from other sources those items which are required on an emergency basis and cannot be supplied immediately from stock by the vendor.

**COOPERATIVE PURCHASING:**

The City and County of Denver encourages and participates in cooperative purchasing endeavors undertaken by or on behalf of other governmental jurisdictions, pursuant to Denver Revised Municipal Code Sec. 20-64.5. To the extent other governmental jurisdictions are legally able to participate in cooperative purchasing endeavors, the City and County of Denver supports such cooperative activities. Further, it is a specific requirement of this Master Purchase Order that pricing offered herein to the City and County of Denver may be offered by the vendor to any other governmental jurisdiction purchasing the same products. The vendor must deal directly with any governmental agency concerning the placement of purchase orders, freight charges for destinations outside of the Denver Metro area, contractual disputes, invoicing, and payment. The City and County of Denver shall not be liable for any costs, damages incurred by any other entity.

**VENDOR PERFORMANCE MANAGEMENT:**

The Purchasing Department may administer a vendor performance management program as part this contract. The purpose of this program is to create a method for documenting and advising the Purchasing Department of exceptional performance or any problems related to the purchased goods and services. Propose as part of your response specific performance measures that may be used to develop a vendor performance management report card. Also provide any other data, criterion or methods that would be effective in measuring vendor performance over the life of this contract.

**DENVER FIRE DEPARMTENT (DFD) TURNOUT ENSEMBLE GENERAL SPECIFICATIONS:**

**STANDARDS, THIRD PARTY TESTING AND LISTING PROGRAM:**

All components used in the construction of these garments shall be tested for compliance to NFPA Standard #1971 2013 revision or most current edition, by Underwriters Laboratories (UL). Underwriters Laboratories and shall certify and list compliance to that standard. Such Certification shall be denoted by the Underwriters Laboratories certification label.

**LABELS:**

Appropriate warning label(s) shall be permanently affixed to each garment. Additionally, the label(s) shall include the following information: Compliance to NFPA Standard #1971 - 2013 edition or most current edition Underwriters Laboratories classified mark

- Manufacturer's name
- Manufacturer's address
- Manufacturer's garment identification number
- Date of manufacture
- Size
- Fiber contents

**ISO CERTIFICATION / REGISTRATION:**

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

**ENSEMBLE SIZING:**

The vendor shall provide a technical expert to assist with complete custom sizing to each individual firefighter at time of order using a tape measure and sample garments. The manufacturer shall provide an 'exact fit set' to the current specification herein upon award, at no cost to ensure proper fit of custom ensemble.

The technical expert shall also be required to assist with confirmation of exact fit at time of acceptance. The firefighters are required to try on gear prior to accepting and leaving the store to verify proper fit in the supervision of the technical expert. In order to achieve this, it's expected the vendor provide proper time and appointments, if necessary, to ensure firefighter is fitted in the custom gear. Fire members who refuse to try on gear upon receipt are to be rescheduled. The Department may not pay for invoiced gear without proof and confirmation of fitting and acceptance. In addition to sizing specification stated herein, all sizing criteria shall conform to or exceed the requirements of NFPA Std. #1851, 2014 edition or most current edition.

Vendor shall be required to facilitate and pay for all shipping of gear back to original ensemble manufacturer to provide necessary alterations ensuring proper fit at vendor cost within 60 days of acceptance. Alterations from other than original ensemble manufacturer will NOT be acceptable. When necessary, if alterations cannot provide proper fit, exchange privileges must also be offered on all items to ensure proper fit, within 60 days of acceptance.

**ORDERING/ DELIVERY:**

The vendor shall provide a means for local Denver Metro Support with a physical store front location, located within 10 miles of the City and County of Denver boundaries. The physical store front location shall be such that it provides a designated area for measuring and fitting; storage of gear awaiting fitting; fit sets; means for multiple firefighters to be sized at the same time; private facilities for changing; and lavatory facilities for firefighter use.

**COMPOSITE PERFORMANCE:**

The garment composite, consisting of the outer shell, moisture barrier and thermal liner, shall provide a Thermal Protective Performance (TPP) of between 38-44 when tested in accordance with most current NFPA 1971 standard before wash. After wash, the TPP shall be between 47-51.

The total garment composite, consisting of the outer shell, moisture barrier and thermal liner, shall provide a Total Heat Loss (THL) of between 245-280 when tested in accordance with most current NFPA 1971 standard.

The Heat Transfer Index rating for the composite's performance shall be 13 ½ seconds for the shoulder when measured at 2 psi (pounds per square inch) and 13 ½ seconds for the knee when measured at 8 psi, meeting the minimum number of 25 for the NFPA Standard #1971 2014 edition or most current edition for conductive compressive heat resistance (CCHR).

**OUTER SHELL MATERIAL:**

The shell shall be black and consist of a PBI Gemini™ XT +/- 7.5 oz./sq. yd. 37% PBI/55% Kevlar/8% Technora highly constructed plain weave with extremely durable FPE water resistant Teflon® F-PPE alloy reinforced with a matrix of 600 denier filament Kevlar® cables, or approved equal. The shell must be treated with an enhanced waterproofing finish.

Bids for outer shell without additional waterproofing shall be considered as non-responsive and rejected.



**MOISTURE BARRIER MATERIAL:**

The “ CROSSTECH®” Type 4A 3-layer moisture barrier material shall 7.0 ounce per square yard three-layer laminate comprised of an enhanced bicomponent membrane, a 3.3 ounce per square yard Nomex® IIIA woven pajama check substrate, and a 1.8 ounce per square yard Nomex® woven fabric. The enhanced bicomponent membrane shall be comprised of a continuous monolithic coating that is completely impregnated within an expanded PTFE (polytetrafluoroethylene, for example Teflon®) matrix that is both hydrophilic (i.e. water-loving) and oleophobic (i.e., oil-hating). This enhanced bicomponent membrane shall not have any of its continuous monolithic coating exposed on its outermost surface (i.e., only the non-melt and non-stick ePTFE surface shall be exposed). The moisture barrier material shall meet all moisture barrier requirements of NFPA 1971 - current edition, which directly includes water penetration resistance, viral penetration resistance, and ‘common chemical’ penetration resistance, and indirectly includes total heat loss (THL) and thermal protective performance (TPP). Further mention of “Specified Moisture Barrier” herein shall refer to this section.

**THERMAL LINER MATERIAL:**

The thermal liner shall be constructed of +/-3.6 oz./sq. yd. Glide (Nomex filament/spun) face cloth quilted to 1 layer of apertured E-89 spunlace aramid 85% Nomex/15% Kevlar weighing approximately 1.5 oz./sq. yd with a Teflon finish. An additional layer of 3.0+ oz. /sq. yd. Nomex Chambray face cloth with a Teflon finish will be positioned toward the outer shell. (Total weight +/- 8.0 oz. / Sq. yd, or approved equal.)

**STRESS POINTS:**

All outer shell stress points, including top and bottom pocket corners, pocket flap corners, top and bottom of storm flap/fly shall be reinforced using a 42 stitch or ¾” minimum bar tack.

**REFLECTIVE TRIM:**

All trim is to be no less than 3" Reflexite FTP-1500 Series Fire Tape (triple trim) of lime/yellow.

All trim shall be sewn with four (4) rows lockstitch: 2 on the bottom and 2 on the top, of each strip of trim throughout ensemble. The trim shall be attached using a stitch count of 8-10 stitches per inch and shall be sewn 5/64” away from the edge of the garment tape.

Coat trim shall be applied as follows: New York Pattern:

- 3" strip to be set in a full circumference at the bottom of the outer shell
- 3" strip shall be set around each sleeve approximately 4" above the cuff
- 3" strip shall be set around each sleeve just above the elbow
- 3" strip shall be set full circumference at the chest

Pant trim to be as follows: (1) strip set full circumference around the cuff 2"to 3" from the bottom hem.

An American Flag will be positioned on the right shoulder of the outer shell facing the proper direction as protocol dictates.

Each coat shall have 3” lime/yellow Scotchlite™ lettering with double stitching.

**LIFETIME WARRANTY:**

Each garment shall have a limited lifetime warranty against defects in material and workmanship which is detailed on a card attached to each garment.

**TRACKING LABEL SYSTEM:**

There shall be a PDF417 or approved equal, two dimensional bar code label permanently affixed to each garment for tracking purposes. The bar code shall contain a minimum of the following information:

- a. unique serial number
- b. item description (brand, model, material color)
- c. lot information (date of mfg., size, etc.)
- d. material description
- e. the standards to which the garment is compliant

The bar code shall be able to withstand customary wash and wear cycles. The PDF417 bar code must incorporate a minimum of a 30% “error correction” capability.

The awarded vendor is to provide to the City at no extra cost a tracking system that can be used on a City PC to track the distribution to individual firefighters. Such a system is to have the capability of tracking as per the above specifications. This tracking system shall provide the capability to produce DFD user generated reports such as: PPE assigned by fire company, member, last cleaning and/or inspection date, at minimum. In addition, the vendor shall work with the department to establish a means such that empowers the firefighter to individually inspect their gear and upload inspection at the firehouse through web based access or smart phone app, to the database for review by Fire Chief or designee, and reporting. Each vendor shall submit with their bid response how they intend to provide this requirement, per A.16.

#### USER INFORMATION GUIDE:

Each garment shall include as a minimum the following User Information Guide with information required by NFPA 1971, most current edition.

- a) Pre-use information:
  - Safety considerations
  - Limitations of use
  - Garment marking recommendations and restrictions
  - A statement that most performance properties of the garment cannot be tested by the user in the field
  - Warranty information
- b) Preparation for use:
  - Sizing/adjustment
  - Recommended storage practices
- c) Inspection:
  - Inspection frequency and details
  - Instructions on how to perform basic instruction per NFPA 1851
  - Instructions on use of inspection tracking functionality
- d) Don/Doff:
  - Donning and doffing procedures
  - Sizing and adjustment procedures
  - Interface issues
- e) Use:
  - Proper use consistent with NFPA 1500, most current edition Standard on Fire Department, Occupational Safety and Health Program, and 29 CFR 1910, 132
- f) Maintenance and Cleaning:
  - Cleaning instructions and precautions with a statement advising users not to use garments that are not thoroughly cleaned and dried
  - Inspection details per NFPA 1851
  - Maintenance criteria and methods of repair where applicable

- Decontamination procedures for both chemical and biological contamination
- g) Retirement and disposal:
- Retirement and disposal criteria and considerations.

**Turnout Ensemble: Honeywell First Responder, Morning Pride Model**

**DENVER FIRE TURNOUT COAT CONSTRUCTION:**

The coat shell to be of 3-panel construction in all layers where back front and back body panel pieces meet. The coat shell and thermal liner are to be constructed in a manner to assure proper chest fit and insure maximum mobility without restriction of the arms and shoulders and minimize the amount of rise. The shoulder of the outer shell shall be reinforced from collar to sleeve with a 7" wide piece of outer shell material sewn over the shoulder seam. The shoulder reinforcement shall be evenly centered from front to back on the shoulder seam. Whatever cuts or design features offered in outer shell MUST BE consistent through all layers of ensemble. When measured at the center of the back from the collar seam to the hem bottom, the coat shall measure 28 - 32" or 35" in length. The sleeves are to be of full length, defined as approximately ½" – 1" beyond wrist.

**MOISTURE BARRIER/THERMAL LINER CONSTRUCTION:**

Cut and design to be identical with the outer shell so that the liner does not buckle, pull, or otherwise restrict body motion. The left and right fronts of the moisture barrier/thermal liner shall be attached to the facings at the front closure of the outer shell. The neck of the moisture barrier/thermal liner shall be secured to the neck of the outer shell collar such that when donning the coat an arm may not accidentally get caught between the outer shell and its inner linings along the neck between the armholes. Hanging FR loop, utilized to hang the jacket shall be 3/4" wide, sewn on extension to tuck into pleat in outer shell collar. An inspection port shall be provided for inspection of Thermal liner and moisture barrier. The garment is to have an inspection port a minimum of 20" in the center of the bottom of the coat for NFPA 1851 most current edition inspections. The inspection port shall utilize one strip of 5/8" fire rated hook and loop closure systems to secure the moisture barrier to the thermal liner.

The liner is to have one 7" by 9" pocket, constructed of outer shell material and lined with moisture barrier material, affixed to the inside of the jacket thermal liner on the left side by means of a lock stitch.

**QUILT THERMAL LINER CONSTRUCTION:**

The moisture barrier is to be completely sewn to the thermal liner at its perimeter with the breathable membrane oriented inward toward the user and away from the outer shell. All moisture barrier seams are to be sealed as required by most current NFPA 1971 standard or most current edition. The moisture barrier/thermal liner is to finish no more than 1" from the cuffs and 3" from the hem. There shall be an inspection port access to the moisture barrier at the bottom of the liner, running the complete horizontal length, with hook and loop closure.

**MOISTURE BARRIER/THERMAL LINER ATTACHMENT:**

Completely Removable: The moisture barrier/thermal liners to be completely detachable from the outer shell for ease of cleaning by the use of hook and loop, zippers, and snaps. There is to be either a brass zipper down each front facing or snaps, hook and loop or snaps along the neck to interface with collar and (1) snap at each sleeve end. The tail of the liner ensemble must be affixed to the outer shell using two snaps at the bottom corners to prevent the moisture/thermal barrier from catching and migrating up and away from the outer shell when donning.

**COLLAR:**

The collar is to be of 4-layer configuration such that when the collar is raised it shall remain standing while providing continuous thermal and moisture protection around the neck and face. To ensure this protection, the inside of the collar is to be fully lined with (1) layer of moisture barrier and (1) layer of thermal liner quilted to the innermost outer shell fabric

layer for additional comfort. The collar shall provide proper interface with liner to insure no moisture penetration through the collar seam to inside of coat.

The outer most layer of the collar shall be outer shell material. The one (1) layer of moisture barrier and two (2) layers of 1.5 oz. apertured E89 thermal barrier or approved equal are to be the composite inner layer. The inner most layer facing the wearer's body shall be outer shell fabric. Horizontal stitching will attach the inner layer of outer shell to the thermal barrier material for added stability and comfort.

The collar is to be snug fitting and shall completely cover the neck and throat area when in the raised position. Raised height shall be approximately four inches, with a contoured overlap at the front of the coat. Collar closure shall be NFPA most current edition compliant, with hook portion sewn on right side of collar, and loop portion sewn on left, set horizontal. Collar shall be of such design so as not to interfere with SCBA face masks, or helmet.

#### DRAG RESCUE DEVICE:

Each coat shall have a Drag Rescue Device that meets NFPA 1971 Standard, most current edition.

#### ELBOW:

The sleeve is to be cut so that it provides for minimal bunching on the inside of elbow. It shall also bend in a way that continues to offer protection for the wrists having minimal rise when the elbow is flexed. A gusset, bellowed, or other ergonomic design is acceptable.

#### SLEEVE WELL/WRISTLET MOUNTING:

To be a combination treated facecloth with a layer of moisture barrier (must be same as specified in ensemble thermal liner layer), sewn no more than 1" back from the combination liner sleeve end to form a sleeve well. The moisture barrier layer shall be secured to the outer shell.

The combination liner sleeve ends are to be inserted into the outer shell sleeve ends by means of lining up the snaps or attaching the FR loop fastener of the combination liner sleeve end with either the FR hook fastener or snaps of the outer shell cuff. This method of combination liner attachment shall prevent any gaps from occurring between the combination liner and sleeve well during a full range of motion. The combination liner is to extend to within 1" of the sleeve end.

#### WRISTLETS:

The internal wristlet is to consist of a 2-ply knit of 48% Nomex/48% Kevlar and 4% Spandex for superior recovery. Wristlet to be combination of natural and bronze pigment dyed by DuPont, and with durable Teflon® water resistant alloy or approved equal not less than 8" extending completely over the palm with a thumbhole or thumb lope preventing the wristlet from sliding back. Wristlets to be double stitched and bound to the moisture barrier/thermal liner providing extended thermal and slash protection.

#### CUFFS:

For added safety, one (1) female snap fastener shall be set in the hook fastener to assist in attaching outer shell to moisture barrier/thermal liner.

#### THERMAL FRONT PANEL CONSTRUCTION:

To provide a continuous thermal and moisture protection around the entire torso including the storm flap. To ensure this protection, as well as reduce potential for wicking moisture to inside of liner, both right and left inside front facings of the coat outer shell shall incorporate outer shell fabric and moisture barrier material as proposed, extending from collar to hem

#### COAT FRONT CLOSURE DESIGN:

The complete outer shell coat front closure design is to consist of a FRONT CLOSURE SYSTEM completely protected by an OUTSIDE STORM FLAP which shall have its own, independent STORM FLAP CLOSURE SYSTEM.

#### STORM FLAP:

A storm flap measuring not less than 5" wide, nor less than 22" in length shall be set on the outside of the RIGHT side of the coat opening for maximum thermal protection and clear drainage. The inner lining of the storm flap is to be comprised of moisture barrier as proposed meeting all requirements for moisture barriers sandwiched between two (2) layers of outer shell fabric.

#### HOOK & DEE RINGS/ HOOK & LOOP ATTACHMENTS:

(CHICAGO CLOSURE): The front closure is to consist of four Dee rings set at the extreme LEFT side of the coat front underneath the storm flap with (2) leather reinforced rivets. Opposite of each Dee ring, a corresponding snap hook is to be set with (2) or (3) leather reinforced rivets to the underside of the leading edge of the RIGHT coat front. Three glove snaps are to be placed between the inside hook and Dee rings to assure proper closure. The storm flap closure shall consist of 2" wide loop on the inner side of the storm flap and 2" wide hook attachments on the left coat front. The hook and loop closure are to extend the full length of the outer storm flap eliminating all exposed frontal hardware.

#### TAKE UP STRAPS:

Two straps are to be sewn and bar tacked 2 ½" on either of side of the coat front, above the pockets. One strap installed on the right side and one on the left side constructed out of one piece of shell material folded to two layers and sewn to form a 1" wide strap. Each strap to be a minimum of eight (8) inches in length and have a 1-1/4" nickel plated postman style slide buckle attached to the buckle and shell by a piece of shell material 6" in length folded to form two layers. The strap is sewn to form an attachment strap approximately 3" in length designed for quick take up adjustment.

The strap of shell material is to be as wide as possible and slide through the buckle. These take up straps are to be installed so that when they are threaded through the slide buckle, the member wearing the turnout coats pulls on the strap toward the back area of the coats for the take up adjustment. They are not to interfere with the coat pockets.

#### FRONT LOWER POCKET:

There shall be two (2) Front Pockets with the dimensions of 9" wide x 8" high with a 2" bellow / semi bellowed bottom with two Grommets to allow for drainage. The pocket is to be entirely reinforced with Kevlar twill on all sides. Each pocket will be placed on each side of the coat. Each pocket shall have a concealed hand warmer pocket placed behind the bellowed pocket, lined in outer shell material. Hand warmer pocket shall have a side opening and be in the same size of pocket. The pocket flap is to measure 4.5" x 9". And be reinforced at each top corner with bar tacks. Pocket flaps shall close to the pocket using 2 pieces of 2" x 3" loop on pocket placed horizontally and two (2) pieces of 2"x 3" hook on underside of flap placed vertically.

#### RADIO POCKET:

Each jacket shall have a pocket designed for the storage of a portable radio. This pocket shall be of box type construction, double stitched to the coat, and shall have one drainage eyelet in the bottom of the pocket. The pocket flap shall be constructed of two layers of outer shell material measuring approximately 5" deep and ¼" wider than the pocket. The pocket flap shall be closed by means of flame resistant hook and loop fastener tape. A 1 ½" by 3" piece of FR hook fastener tape shall be installed vertically on the inside of the pocket flap beginning at the center of the bottom of the flap. A 1 ½" by 3" piece of FR loop fastener tape shall be installed horizontally on the outside of the pocket near the top center and positioned to engage the hook fastener tape. In addition, flap shall be reinforced at each top corner with bar tacks. Flap to be notched 1" at left rear corner to accommodate radio antenna. The pocket is to have five (5) brass eyelets in front and at bottom of pocket extending up 5" from bottom of pocket for radio transmission out of pocket to occur.

The entire inside of the pocket shall be lined with moisture barrier material to ensure that the radio is protected from the elements. The radio pocket shall measure approximately 2 3/4" deep by 3 1/2" wide by 6" high and shall be installed on the right chest.

**FLASHLIGHT HOLDER TAB AND STRAP:**

A flashlight holder shall be placed approximately 3.5" below the midline top shoulder on the left chest. It shall be constructed with a 2.5"x 3.5" self fabric reinforcement. On top of the reinforcement shall be a tab/loop having a reverse D-ring sewn in place on the tab/loop. The self fabric tab/loop is to be secured on each end with bar tacks. Approximately 3 1/2" below the loop, a 3" x 9" double ply self fabric strap will be secured with an X stitch in the center. The lower strap is to have 1"x 5" Velcro on either end.

**MIC TABS:**

Mic tabs are to be placed 2" above flashlight attachment holder tab/loop on the left side of the jacket.

**DENVER FIRE TURNOUT PANT BODY CONSTRUCTION:**

The pant shall have a traditional waist design that rides at members' natural waist line and does not have a high waist or built in lumbar. The body of the shell shall be constructed of four separate body panels consisting of two front panels and two back panels. The body panels shall be shaped so as to provide a tailored fit, thereby enhancing body movement and minimizing rise. The panels shall be joined together by double stitching with Nomex® thread. The body panels and seam lengths shall be graded to size to assure accurate fit in a broad range of sizes.

**MOISTURE BARRIER/THERMAL LINER CONSTRUCTION:**

To be identical with the outer shell so that the liner does not buckle, pull, or otherwise restrict body motion. The bottom 9" of each thermal leg is to be constructed of treated facecloth (must be same as specified in ensemble thermal liner layer) with two layers of apertured E-89 spun laced aramid to deter the wicking of moisture up the thermal liner leg. The waist of the moisture barrier/thermal liner is to be secured to the waist of the outer shell such that when donning the pant a leg may not be accidentally caught between the outer shell and its inner linings along the waist and between the legs of the pant.

**QUILT THERMAL LINER CONSTRUCTION:**

The moisture barrier is to be completely sewn to the thermal liner which shall be constructed of the same material as the jacket at its perimeter with the breathable membrane oriented inward toward the user and away from the outer shell. The moisture barrier/thermal liner is to finish no more than 3" from the cuffs.

**MOISTURE BARRIER/THERMAL LINER ATTACHMENT:**

Completely Removable: The moisture barrier/thermal liner is to be completely detachable from the outer shell for ease of cleaning by a snap system. Eight (8) evenly spaced snaps shall secure the liner to the integral waistband, with two (2) snaps set in leather leg tabs at each leg end.

**STORM FLY/CLOSURE:**

The outer shell is to have an overlapping fly front running the full length of the fly on the left side. The bottom of the fly to be reinforced with a bartack.

The storm fly is to be held closed along its length by means of a hook and loop fastener closure 2" minimum width, along the leading edge for a distance of not less than 6" from the bottom of the fly closure to the waist area for proper alignment and secure closure. The storm fly to be of outer shell material, lined with a 3.5" strip of CROSSTECH® Type 4A 3-layer moisture barrier material, or, to prevent wicking. And the same facecloth as the rest of the ensemble to prevent premature wear.

A hook and Dee ring closure for quick one motion closing at the waist. The hook is to be 2.5" in length, made of zinc non ferrous metal alloy and weigh approximately 1.2 oz, and securely fastened to the pant by means of 3 leather backed rivets. The Dee ring is to be made of a non ferrous metal alloy 2" long x 1-1/16" wide, attached with two (2) leather backed rivets.

The outer shell front fly shall have a sewn on diagonal flap for additional coverage. The a diagonal fly shall be sewn to the front of the pant with double lock stitch and measure 5" wide at the top of the pant.

#### LINER ACCESS OPENING (TROUSER):

The thermal liner and moisture barrier layers of the trouser liner system shall be constructed in such a way as to allow the layers to separate for complete interior inspection, service and replacement.

#### WAISTBAND:

The waist of the pants is to be reinforced on the inside with two- (2) ply of outer shell fabric material not less than 1.5" in width. The pant waist is to be turned under to provide double material strength with the independent waistband, which shall then be double stitched to the outer shell. The waistband shall remain flat and not roll up.

Eight (8) suspender buttons shall be appropriately spaced around the waistband to accommodate the use of suspenders. Each pant shall contain an extra set of suspender buttons that can be easily attached in the field.

#### EXTERNAL TAKE UPS:

Two (2) waist straps are to be sewn and bar tacked 2 1/2" down from the top of the waistband. One (1) strap to be installed on the right side and one on the left side, constructed out of one piece of shell material folded to two layers and sewn to form a 1/2" wide strap. Each strap is to be approximately 8 1/2" in length. These take up straps are to have a 5/8" nickel plated postman style slide buckle which is attached by a piece of shell material 6" in length folded to form two layers. The strap is sewn to form an attachment strap approximately 3" in length designed for quick take up adjustment

#### RADIAL INSEAM BAND:

The pant inseam is to incorporate a comfort/mobility design in all layers, to eliminate crotch seams, providing for a more comfortable fit while decreasing bunching of materials. Mobility is to be gained through this design by increasing leg circumference. This design will reduce restriction of leg movement.

#### KNEE

The knee area of the pant legs shall be constructed in such a way as to provide ergonomic design to maximize movement and mobility. This construction shall be evident in all layers of the trousers. The knee will be installed proportionate to the trouser inseam, in such a manner that it falls in an anatomically correct knee location.

In addition to the outer shell and moisture barrier/thermal liner, the knee shall have a thermally enhanced knee reinforcement to provide extra padding and thermal protection for the knees. The thermally enhanced knee reinforcement shall ensure proper coverage and padding when bending, kneeling and crawling. The thermally enhanced knee reinforcement shall measure approximately 9" wide by 12" high and shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance. The outside knee reinforcement layer shall be reinforced with a hybrid fabric which will provide long lasting durability and decontaminability for all potential applications, including ARFF when necessary.

#### CUFFS:

A design shall be incorporated in the rear of the pant at the cuff to allow the bottom of the cuff not to drag on the ground. This design will be a boot cut or similar design approved by Denver Fire Department.

#### FULL BELLOWS POCKETS:

Full bellow pockets shall be 10" wide x 10" deep and are to expand by means of side and bottom gussets to a thickness of 2" in front and back. Pockets are to be fully lined with a material designed to provide durable resistance to wear, such as polymer coated aramid or approved acceptable equal. The twill material shall have no unfinished seams showing.

Pockets are to be set with the top and bottom pocket corners reinforced with bar tacks for additional strength. Drainage of moisture in pockets is to be provided by two (2) grommets. Pocket flaps shall be 11" x 5" and shall be reinforced at each top corner with bar tacks.

A hook and loop fastener closure system shall be set with 1.5" x 10" loop fastener on the pocket and two (2) pieces of 1.5" x 2.75" hook fastener on the underside of the flap.

Pocket interior shall have a 9" wide by 2" tall loop only piece on the inner side of pocket.

The flap of both pockets will include a 7" long by 1" wide strap of double layered outer shell material. The strap will be sewn with 3" of hook and loop fastener on opposing sides to create a loop to wrap around a pair of firefighting gloves.

Semi-bellowed designs may be considered at the discretion of Denver Fire Department.

#### DENVER FIRE X-BACK SUSPENDERS

A 42" black quick adjust suspender designed for greater range of mobility and reduced stress allowing for eight points of attachment to a traditional waist bunker pant with traditional suspender buttons.

**The vendor shall provide suspender system with all pant orders.**

#### SUSPENDER DESIGN:

Suspenders shall be comprised of non-elastic spun yarn webbing upper body and "free floating", crossover at the rear lower body.

Length adjustment shall be provided by two (2) quick adjust style buckles, one (1) on each chest of the upper body straps.

Attachment to the bunker pants shall be provided by four (4) single layer 2" wide elastic straps assembled at each of the four (4) circular connectors located at the ends of the upper body and rear lower body assemblies.

The design shall then provide button wire loops for eight (8) point support of fully loaded and soaked bunker pants without relying on belts or take-up straps at the waist which can restrict mobility and air circulation / ventilation.

"Free floating", crossover rear lower body shall be accomplished by threading the right and left suspender body through fabric loops constructed as part of the rear lower suspender body.

#### MATERIALS

Upper body and free floating rear lower body, shall be 2" wide non-elastic spun yarn webbing, woven from flag blue, direct dyed yarn.

The four (4) circular connectors shall be rust resistant plated alloy with a 2" inside dimension.

The two (2) quick adjust length adjustment buckles shall be thermoplastic with non-slip teeth and short length release tabs so as not to get caught on clothing and cause the suspenders to loosen on their own.



For superior performance, rebound memory, wear life and mobility; the upper body shall connect to the suspender button wire loops by means of heavy duty, single layer 2” red elastic webbing.

Suspender button wire loops shall be one (1) piece welded steel with a rust resistant nickel plating and a 1.5” opening at the top to allow attachment to the red elastic webbing strapping. The nipple attachment portion of the wire loop shall be of adequate size to interface with the diameter of the posts on suspender buttons of bunker pants with a minimum of end-user adjustment.

**CONSTRUCTION**

The upper/rear body (A) shall be assembled of two (2) longer pieces of 2” spun yarn webbing (right and left), with quick adjust buckles lock-stitched in the chest area. The upper/rear body extends up over the shoulders and down the back where they are threaded through each other at the rear lower “loop” sewn into each rear lower body (B) and lock stitched (C) at the rear circular connectors. In the front, the separate, and shorter, lower front body is then lock-stitched to it’s circular connector (D). The upper ends of each front body are then threaded up, through and back down through the quick adjust buckle (E) on each chest portion of strapping. The loose ends are then doubled over and sewn without raw edges to provide a means of length adjustment.

The four (4) elastic strap assemblies (H) at each end of the front/lower body and rear lower body shall be threaded through the bottom of the circular 2” connectors (D,G); then each end of the elastic threaded through the top of the suspender button wire doubled loop (I); then lockstitched below the connectors to form single layers of 2” elastic (J).

**SIZING**

Standard length suspenders shall be available in short, regular and long lengths. Custom length suspenders, shorter or longer than standard sizes, shall be available at no extra charge upon request of the department or individual.

**ITEMS and PRICING:**

Item No	Description	Unit Price	Manufacturer	Model No	Warranty	Delivery Days ARO
<b>GROUP 1: Turnout Gear</b>						
1	Turnout Bunker Coat	990.81	<b>Morning Pride</b>	<b>LTO 41BT Black</b>	Limited Lifetime	45 days
2	Turnout Bunker Pant with Suspenders	657.41	<b>Morning Pride</b>	<b>LTO 41BT Black</b>	Limited Lifetime	45 days
3a	Turnout Bunker Suspenders for Replacement – Short	22.00	<b>Honeywell</b>	<b>SP-DFQ-S Black</b>	Limited Lifetime	1-30 days
3b	Turnout Bunker Suspenders for Replacement – Regular	22.00	<b>Honeywell</b>	<b>SP-DFQ-R Black</b>	Limited Lifetime	1-30 days
3c	Turnout Bunker Suspenders for Replacement - Long	22.00	<b>Honeywell</b>	<b>SP-DFQ-L Black</b>	Limited Lifetime	1-30 days

**For more information, contact buyer Jessica Skibo, 720-913-8110 or [jessica.skibo@denvergov.org](mailto:jessica.skibo@denvergov.org).**