

EXHIBIT "A"
HIDALGO COUNTY
"Purchase of New Bulletproof Vests (soft body armors)"
BID No. 2012-016-00-00-MEG

INTRODUCTION:

Hidalgo County is currently soliciting to contract a qualified vendor that meets or exceeds all specification/requirements, terms and conditions for the purchase of Bulletproof Vests (body armors) on an "As Needed Basis". The product specification details the style and quality of **concealable soft bulletproof vests (body armors)** intended for use by male or female members. The vests shall be worn comfortably while being concealed under a shirt. All vests shall provide resistance against labeled projectile penetration while reducing resultant blunt trauma and vest distortion to acceptable levels. The successful vendor shall be required to supply the individual vests with applicable options and colors as ordered for male or female personnel. ALL VEST MUST BE ON A **LEVEL II AND IIIA BULLETPROOF VESTS (soft body armors).**

LEVEL II VESTS
Option -A

1. SCOPE

The concealable body armor shall meet the NIJ STD. 0101.04 / NIJ 2005 Interim Requirements, Threat Level II. Bids based on body armor models made by manufacturers must be clearly identified as such, and bidders must include full product description, a complete bid sample, male and female, drawings and/or photographs, technical specifications.

Where the apparent low bidder has proposed an alternate product, that bidder shall demonstrate product equivalency to the satisfaction of the department. Evidence of equivalency shall be presented for each requirement of this specification, and the burden of such equivalency in entirety on the vendor. Any bidder may be required, at any time during the procurement process, to provide documentation proving compliance with any or all the terms of this specification.

Any enhancements to vests, in order to improve performance of vests, will be accepted as long as they are in compliance & approved by National Institute of Justice (NIJ) STD. 0101.04 / NIJ 2005 National Law Enforcement Technology Center (NLETC).

Only body armor models, which have been tested by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC), and found to comply with the requirements of NIJ STD. 0101.04 / NIJ 2005 Interim Requirements for Type II armor, shall be submitted under this specification.

Bids with multiple models, as alternates will be rejected.

2. SILENCE OF SPECIFICATIONS

Commercially accepted practices shall apply to any detail not covered in this specification and to any omission of this specification. Any omission or question of interpretation of the specification which affects the ballistic performance or integrity of the soft body armor being offered shall be addressed in writing and submitted with the bid.

3. PROTEST

Any protest based on the selection and performance criteria of this specification will be disregarded.

4. APPLICABLE DOCUMENTS

The following list of standards and specifications in effect on the date of this solicitation shall form a part of this specification.

1. National Institute of Justice, NIJ STD. 0101.04 / NIJ 2005 Interim Requirements, Ballistic Resistance of Police Body Armor
2. MIL-STD-662F, Y50 Ballistic Test for Armor
3. ASTM D 6193, Standard Practices for Stitches and Seams.
4. ANSI/ISO/ ASQ Q9001-2000 Certification.

Requirements of this specification shall take precedence over the above referenced standards and specifications.

5. PURCHASE REQUIREMENT

The successful bidder must be a recognized wholesaler/retailer, who maintains a convenient location for measurement, fitting and service during regular business hours Monday through Friday or have a sales representative made available to measure at each County Department.

6. SPECIFIC QUANTITY

Hidalgo County has the right to determine quantity, if not otherwise specified in the procurement document. Of the total quantity purchased, both male and female products will be represented. The department retains the right to adjust the total quantities, while maintaining the accepted bid price, without notification to vendor. The term of the contract, including extensions, and/or escalation clauses, shall be stated in the bid document.

7. DESIGN REQUIREMENTS

The Intended use of the soft body armor detailed herein is intended to be standard issue armor. It is intended for routine daily wear as an

undergarment.

The soft body armor shall be designed to provide:

1. Light and thin NIJ certified armor in Level II.
2. High degree of concealment and comfort.
3. Minimum restriction of motion or mobility.
4. Optional carriers to allow for laundering and color changes.
5. Provide resistance against the labeled projectiles in accordance with the NIJ STD. 0101.04 /NIJ 2005 Interim Requirements.

8. GENERAL DESIGN

The ballistic panels of soft body armor meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor shall be designed for regular daily wear as an undergarment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level II, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and concealment. The general configuration shall be the slipover vest type that covers the majority of the upper torso, including side coverage. Two removable/replaceable elastic shoulder straps and four removable/replaceable elastic waist straps with hook and pile fasteners shall provide proper positioning and comfort. The entire vest perimeter shall be curved. No sharp corners or straight edges shall be allowed.

The front ballistic panel shall cover the chest approximately up to the collar bone, have a scooped neck sufficient to maintain conceal ability when wearing an open collar shirt, extend downward to the waist but not far enough to "push up into the throat" when the wearer is seated, and extend around the sides to provide side protection. The biceps/chest region shall be cut with sufficient space to minimize irritation and restriction of arm movement during common duties such as the operation of motor vehicles. The outer shell carriers shall include front and rear 5"x8"/ 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts.

The rear ballistic panel shall cover the back of the torso from just above the shoulder blades down to a position above the waist belt. In addition, unless otherwise stated, the maximum gap at each side shall be two inches.

Female models shall be designed specifically for the female torso and shall have allowances for bust configuration.

Panels shall be equipped with an integral self suspending ballistic system (SSBS). The SSBS must provide direct support to the ballistic panels to keep them sagging and creasing at the bottom of the carrier.

Each piece of soft body armor shall include the following:

1. One (1) set of ballistic panels.
2. Integral Self Suspending Ballistic System (SSBS).
3. Four (4) removable/replaceable 4 point 2" elastic waist straps.
4. One (1) complete washable Carrier System, in color.
5. Front and Rear 5" x 8" / 8" x 10" Combo pockets.
6. One (1) trauma reduction inserts.
7. Two (2) removable/replaceable shoulder straps.

9. ADDITIONAL COMPLETE CARRIER SYSTEM

Selected Colors: tan, black or blue only

1. Integral Self Suspending Ballistic System (SSBS).
2. Four (4) removable/replaceable 4 point 2" elastic waist straps
3. Two (2) removable/replaceable shoulder straps
4. Front and Rear 5" x 8" / 8" x 10" Combo pockets.

10. BALLISTIC PANEL MATERIALS

All materials shall be new, unused and without flaws that affect appearance, durability and function. The ballistic panels shall be constructed of a matrix of woven Aramid fabric, Aramid UD and polyethylene UD. No other ballistic material shall be used.

As the department has selected these materials, any bids, which represent products manufactured from other materials, shall be rejected.

Accordingly, all bidders shall include a letter from the manufacturer stating that the products being submitted for consideration are manufactured from 100% first quality woven Aramid fabric, Aramid UD and polyethylene UD.

11. PANEL CONSTRUCTION

All vests, which are submitted, shall represent armor, which in layer count, is uniform throughout the ballistic panel. Accordingly, any ballistic panel, which is not uniform, in layer count, throughout the entire ballistic package, shall be rejected.

It is the intent of Hidalgo County to procure the lightest weight, best performing personal armor available in relation to areal density, therefore, a vest section of 12" x 12" (one square foot), must not exceed 12.6 oz. (.79 lbs.) per square foot for NIJ level II.

12. BALLISTIC PANEL PERFORMANCE **V50 Performance**

Each bidder shall submit V50 test reports for the vest being offered. The V50 test shall be performed in accordance with MIL-STD-662F using NIJ STD. 0101.04 / NIJ 2005 Interim Requirements test projectiles. The test must be performed by an independent laboratory approved by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC) for testing in accordance with NIJ STD. 0101.04 / NIJ 2005 Interim Requirements. The V 50 test shall be against clay backing. V 50 reports, which

represent testing without clay backing, shall be rejected. Vendor shall provide written certification that all V 50 testing is accomplished with clay backing; failure to provide certification shall be cause for rejection.

Test reports submitted by the bidder shall reflect the following minimum test results for a 12.6 oz. (.79 lbs.) per square foot test sample.

	<u>9mm</u>	<u>357 Mag</u>
V50 (fps)	1583	1600
V50 (m/s)	482	488
BFS (mm)	22	31
BFS (in)	.87	1.22

Bid submissions, which do not meet this requirement, will be rejected.

13. LABELING

Label material shall withstand normal wear and cleaning and remain readable during the entire warranted life of the armor or carrier.

All soft body armor shall be labeled in strict adherence to the labeling requirement set forth in NIJ STD. 0101.04/NIJ 2005 Interim Requirements. The ballistic panel labeling shall include, but not be limited to the following:

1. Name of Manufacture
2. Level of Protection
3. NIJ STD. 0101.04 / NIJ 2005 Interim Requirements
4. Date of Manufacture
5. Size
6. Serial Number
7. Model of Vest
8. Care Instructions

14. BALLISTIC PANEL COVER MATERIAL (Heat Sealed)

Hidalgo County recognizes the importance of protecting the ballistic panel from exposure to environmental elements. Also, the department is aware that high degrees of “moisture Vapor Transmission” (WVT) through the ballistic panel cover may allow moisture to migrate into the fibrous structure of the ballistic panel thus causing a reduction in ballistic performance. **Therefore, potential bidders who offer ballistic panel covers that claim to “Breathe” or allow high levels of “Moisture Vapor Transmission” to pass through them will not be considered.** **Hidalgo County** will only consider armor systems that incorporate a Ballistic Panel Barrier System. The Barrier System must exhibit a high degree of water repellency and resistance to MVT. The Barrier system will have a water repellent treatment on its exposed surface that resists moisture and staining. In addition, the Barrier System will incorporate a Nano-Technology, Anti-Microbial/Anti-Fungal treatment that inhibits the growth of mold and bacteria. The interior of the Barrier System will incorporate an all weather film laminate technology to further enhance resistance to moisture migration and MVT. **Hidalgo County** will only accept offers from potential suppliers who can provide laboratory test reports indicating that the ballistic panel Barrier System being offered provides the following minimum protection on a per lot basis:

Characteristic	Requirement	Test Method
Determination of resistance to water penetration - Hydrostatic pressure test (mm)	> 10,000	ISO-811
Water Vapor Transmission (gms/sq mtr / 24 hrs)	< 550	ASTM E96 D (inverted)
Wet-flex after 24 hours	No delamination	BWW -24H
Resistance to water penetration after exposure to diesel fuel (psi)	>90 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to sea water (psi)	>100 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to alcohol (psi)	>100 <u>1/</u>	ASTM D751

*** Each fabric shall be completely submerged in particular fluid for a period of 24 hours and line-dried.*

**15. VEST OUTER CARRIER MATERIAL
Removable Carrier**

The machine washable carrier shall be removable from the ballistic panels for laundering. The carrier systems body side fabric shall consist of moisture wicking mesh. To eliminate uncomfortable body side seams and bulges, there shall be no zippers or hook & loop closures against the body. The exterior of the outer-shell will utilize Super-Suede Micro-Fiber (equal or better) with a mid-torso horizontal zipper for improved insertion and removal of the ballistic panel cover. Low profile loop will be used for strap attachment points to reduced bunching and pulling of the uniform shirt. The interior of the carrier at the shoulders shall have attachment points made of low profile loop to allow for internal suspension of the ballistic panel via tabs of hook. This enables the wearer to utilize separate external shoulder straps. In addition, the carrier shall be designed so that it can accommodate the Self Suspending Ballistic System (SSBS). **No substitutes will be accepted.** The outer shell carriers shall include front and rear 5” x 8” / 8” x 10” combination plate pockets designed to accommodate trauma, ballistic or blade inserts. Carrier shall be manufactured from a dimensionally stable first quality material with less than 5% shrinkage. The outer side of the carrier shall be manufactured from first quality Super-Suede Micro-Fiber (equal or better), and have a Soil Resistant Finish (SRF). All fabrics shall have no visible fabric or color flaws.

16. QUALITY CONTROL

The awarded **vendor** must maintain a ANSI/ISO/ ASQ Q9001-2000 Certification quality program. The documented quality control system must be designed to insure the integrity and quality of the manufactured products. The quality control system shall control all manufacturing process and incoming raw materials. The vendor must have an in-house ballistic laboratory capable of performing ballistic testing of incoming raw materials and in-process samples. The vendor must have the capability of performing testing in accordance with MIL-STD-662F and NIJ STD. 0101.04 / NIJ 2005 Interim Requirements. Procedures for lot testing of incoming raw materials and in-process samples must be incorporated into the quality control system.

All incoming ballistic material shall undergo V50 ballistic lot tests in accordance with MIL-STD-662F. Every vest panel manufactured shall be inspected for material defects and proper ply counts. Every vest panel manufactured shall be subsequently inspected for proper ballistic panel stitching. Covers and accessories shall be re-inspected during manufacturing for defects at selected points during manufacturing to assure the absence of hidden defects in the final item.

In addition, each vest shall receive a final inspection prior to shipment. This inspection shall include a review of the quality control check sheet and confirm the product against the customer's order.

17. SERIAL NUMBERS

Each unit of soft body armor delivered shall have an individual serial number. Each serialized soft body armor shall be traceable to its original ballistic material lot number and ballistic material mill roll number. Additionally the soft body armor serial number shall be traceable to an Incoming material lot test and ballistic panel lay-up lot test.

18. LOT TESTING

All incoming ballistic material shall undergo V50 ballistic lot test in accordance with MIL-STD-662F except that the test will be conducted on clay backing which meets the requirements of NIJ STD. 0101.04 / NIJ 2005 Interim Requirements for backing material.

19. MEASUREMENTS AND FITTING:

Custom Measuring

Unless otherwise stated, individual measurements will be taken of each user. Each delivered vest shall fit in accordance with the following guidelines:

1. The side edges of the front and back ballistic panels shall be fit for within a two-inch (2") gap between panels during the initial custom fitting.
2. The bottom edge of the front ballistic panel shall be within inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in a relaxed seated position.
3. The bottom edge of the back panel shall be within one-inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in the standing position.

Female sizes are determined based on individual measurements, including bust size.

20. FIT AND ALTERATION POLICY

The **vendor** shall perform all required alterations of more than one inch within 30 days after original shipment of the product at no charge. Adjustments of an inch or less than an inch can be accomplished by utilizing the adjustable strap feature on the vest.

21. WARRANTIES:

1. Vendor shall warrant the ballistic panels to be free from defects in workmanship and materials for a minimum of five (5) years.
2. Vendor shall warrant the carriers to be free from defects in workmanship and materials for a minimum of two (2) years.
3. Any vest found to be defective during the warranty period shall be replaced by the Vendor at no cost to the County. Such replacement shall be within ten working days.
4. Ill-fitting ballistic resistant body armor vest(s) shall be viewed, re-measured, and altered if deemed necessary to comply with proper fit on officers, and shall be performed within thirty(30) calendar day of notification.
5. County shall notify vendor of ill-fitting or defective vests within forty (40) calendar days of receipt of goods.

22. PACKAGING

All soft body armor shall be packaged and shipped consistent with good commercial practices. Shipping Cartons: The soft body armor shall be packed into suitable corrugated cardboard box. The box shall allow for normal shipping without damage to the soft body armor.

23. DOCUMENTATION

The following documents, certifications, test-reports and samples must be included with the vendor's bid. Failure to submit the following shall be cause for rejection:

1. Models made by manufacturers must be clearly identified and shall include the following:
 - a. Full product description.
 - b. Complete bid sample, male and female.
 - c. Drawings and/or photographs.
 - d. Technical specifications.
2. NIJ 0101.04 / NIJ 2005 Interim Requirements certification and test reports from an accredited laboratory for the vest being certified.
3. V50 test reports performed in accordance with MIL-STD-662F. V50 testing must be accomplished with clay backing. V50 test reports must be submitted for the ballistic package for both NIJ calibers for that class.
4. Quality Control Procedures.

- a. Incoming materials
 - b. Lay-up configuration
 - c. In-process configuration
 - d. Testing verification
 - e. Inspection of ballistic panel stitching
 - f. Random final product inspection and continuous in-process surveillance
 - g. Quality Assurance training and indoctrination
5. Documentation stating the coverage and limitations of the 5-year ballistic package warranty.
 6. Documentation stating the coverage and limitations of the 24-month outer-shell cover warranty.

Technical Specifications
Level II
Concealable Armor

Ballistic Material	Aramid fabric Aramid UD Polyethylene UD
NIJ	Level II
Weight	12.6 Oz. / .79 lbs. Sq. Ft.
Thickness	.15 inches

	9mm	357 Mag
V50 (fps)	1583	1600
V50 (m/s)	482	488
BFS (mm)	22	31
BFS (in)	.87	1.22

LEVEL II VESTS

OPTION B

1. SCOPE

The concealable body armor shall meet the NIJ 0101.04 / NIJ 2005 Interim Requirements, for Threat Level II Bids based on body armor models made by manufacturers must be clearly identified as such, and bidders must include full product description, a complete bid sample, male and female, drawings and/or photographs, technical specifications.

Where the apparent low bidder has proposed an alternate product, that bidder shall demonstrate product equivalency to the satisfaction of the department. Evidence of equivalency shall be presented for each requirement of this specification, and the burden of such equivalency in entirety on the vendor. Any bidder may be required, at any time during the procurement process, to provide documentation proving compliance with any or all the terms of this specification.

Only body armor models, which have been tested by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC), and found to comply with NIJ Standard 0101.04, Ballistic Resistance of Police Body Armor and NIJ 2005 Interim Requirements for Type II armor, shall be submitted under this specification. No exceptions.

Bids with multiple models, as alternates will be rejected.

2. SILENCE OF SPECIFICATIONS

Commercially accepted practices shall apply to any detail not covered in this specification and to any omission of this specification. Any omission or question of interpretation of the specification which affects the ballistic performance or integrity of the soft body armor being offered shall be addressed in writing and submitted with the bid.

3. PROTEST

Any protest based on the selection and performance criteria of this specification will be disregarded.

4. APPLICABLE DOCUMENTS

The following list of standards and specifications in effect on the date of this solicitation shall form a part of this specification.

1. National Institute of Justice, Standard NIJ-STD-0101.04, Ballistic Resistance of Police Body Armor/ NIJ 2005 Interim Requirements
2. MIL-STD-662F, V50 Ballistic Test for Armor
3. ASTM D 6193, Standard Practices for Stitches and Seams.
4. ANSI/ISO/ ASQ Q9001-2000 Certification

Requirements of this specification shall take precedence over the above referenced standards and specifications.

5. PURCHASE REQUIREMENTS

The successful bidder must be a recognized wholesaler/retailer, which maintains a convenient location for measurement, fitting and service during regular business hours Monday through Friday or have a sales representative made available to measure at each County Department.

6. SPECIFIC QUANTITY

Hidalgo County has the right to determine quantity, if not otherwise specified in the procurement document. Of the total quantity purchased, both male and female products will be represented. The department retains the right to adjust the total quantities, while maintaining the accepted bid price, without notification to vendor. The term of the contract, including extensions, and/or escalation clauses, shall be stated in the bid document.

7. DESIGN REQUIREMENTS

The Intended use of the soft body armor detailed herein is intended to be standard issue armor. It is intended for routine daily wear as an under garment.

The soft body armor shall be designed to provide:

1. Light and thin NIJ certified armor in Level II
2. A high degree of concealment and comfort.
3. Minimum restriction of motion or mobility.
4. Optional carriers to allow for laundering and color changes.
5. Provide resistance against the labeled projectiles in accordance with the NIJ Standard 0101.04. / NIJ 2005

8. GENERAL DESIGN

The ballistic panels of soft body armor meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor shall be designed for regular daily wear as an undergarment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level II, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and concealment The general configuration shall be the slipover vest type that covers the majority of the upper torso, including side coverage. Two removable/replaceable elastic shoulder straps and four removable/replaceable elastic waist straps with hook and pile fasteners shall provide proper positioning and comfort. The entire vest perimeter shall be curved. No sharp corners or straight edges shall be allowed.

The front ballistic panel shall cover the chest approximately up to the collar bone, have a scooped neck sufficient to maintain conceal ability when wearing an open collar shirt, extend downward to the waist but not far enough to "push up into the throat" when the wearer is seated, and extend around the sides to provide side protection. The biceps/chest region shall be cut with sufficient space to minimize irritation and restriction of arm movement during common duties such as the operation of motor vehicles. The outer shell carriers shall include front and rear 5" x 8" / 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts.

The rear ballistic panel shall cover the back of the torso from just above the shoulder blades down to a position above the waist belt. In addition, unless otherwise stated, the maximum gap at each side shall be two inches.

Female models shall be designed specifically for the female torso and shall have allowances for bust configuration.

Panels shall be equipped with an integral self suspending ballistic system (SSBS). The SSBS must provide direct support to the ballistic panels to keep them sagging and creasing at the bottom of the carrier.

Each piece of soft body armor shall include the following:

1. One (1) set of ballistic panels.
2. Integral self suspending ballistic system (SSBS).
3. Removable 4 point 2" elastic waist straps
4. One (1) complete washable Carrier System.
5. Front and Rear 5" x 8" / 8" x 10" Combo pockets.
6. One (1) Trauma Reduction insert.

9. ADDITIONAL COMPLETE CARRIER SYSTEM

Selected Colors: tan, black or blue only

1. Integral self suspending ballistic system (SSBS)
2. Removable 4 point 2" elastic waist straps
3. Front and Rear 5" x 8" / 8" x 10" Combo pockets

10. BALLISTIC PANEL COVER MATERIALS (HEAT SEALED)

All materials shall be new, unused and without flaws that affect appearance, durability and function. The ballistic panels shall be constructed of a matrix of Woven Para-Aramid fabric. No other ballistic material shall be used.

As the department has selected these materials, any bids, which represent products manufactured from other materials, shall be rejected. Accordingly, all bidders shall include a letter from the manufacturer stating that the products being submitted for consideration are manufactured from 100% first quality Woven Para-Aramid fabric

11. PANEL CONSTRUCTION

All vests, which are submitted, shall represent armor, which in layer count, is uniform throughout the ballistic panel. Accordingly, any ballistic panel, which is not uniform, in layer count, throughout the entire ballistic package, shall be rejected.

It is the intent of **Hidalgo County** to procure the lightest weight, best performing personal armor available in relation to Areal density, therefore, a vest section of 12" x 12" (one square foot), must not exceed 10.6 oz. (.66 lbs.) per square foot for NIJ level II. Sample weights are (+/- 5%).

12. BALLISTIC PANEL PERFORMANCE

V50 Performance

Each bidder shall submit V50 test reports for the vest being offered. The V50 test shall be performed in accordance with MIL-STD-662F using NIJ Standard 0101.04 test projectiles. The test must be performed by an independent laboratory approved by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC) for testing in accordance with NIJ Standard 0101.04. The V 50 test shall be against clay backing. V 50 reports, which represent testing without clay backing, shall be rejected. Vendor shall provide written certification that all V 50 testing is accomplished with clay backing; failure to provide certification shall be cause for rejection. Test reports submitted by the bidder shall reflect the following minimum test results for an 10.6 oz. (.66 lbs.) per square foot test sample. Sample weights are (+/- 5%). Blunt trauma reduction is also an important aspect of armor design. Low back face signature (BFS) should result in reduced blunt trauma injury.

	<u>9mm</u>	<u>357 Mag</u>
V50 (fps)	1664	1644
V50 (m/s)	507	501
BFS (mm)	32	39
BFS (in)	1.26	1.53

Bid submissions, which do not meet this requirement, will be rejected.

13. LABELING

Label material shall withstand normal wear and cleaning and remain readable during the entire warranted life of the armor or carrier.

All soft body armor shall be labeled in strict adherence to the labeling requirement set forth in NIJ Standard 0101.04 / NIJ 2005 Interim Requirements. The ballistic panel labeling shall include, but not be limited to the following:

1. Name of Manufacture
2. Level of Protection
3. NIJ 2005 Interim Requirements
4. Date of Manufacture
5. Size
6. Serial Number
7. Model of Vest
8. Care Instructions

14. BALLISTIC PANEL COVER MATERIAL (Heat Sealed)

Hidalgo County recognizes the importance of protecting the ballistic panel from exposure to environmental elements. Also, the department is aware that high degrees of “moisture Vapor Transmission” (WVT) through the ballistic panel cover may allow moisture to migrate into the fibrous structure of the ballistic panel thus causing a reduction in ballistic performance. **Therefore, potential bidders who offer ballistic panel covers that claim to “Breathe” or allow high levels of “Moisture Vapor Transmission” to pass through them will not be considered.** **Hidalgo County** will only consider armor systems that incorporate a Ballistic Panel Barrier System. The Barrier System must exhibit a high degree of water repellency and resistance to MVT. The Barrier system will have a water repellant treatment on its exposed surface that resists moisture and staining. In addition, the Barrier System will incorporate a Nano-Technology, Anti-Microbial/Anti-Fungal treatment that inhibits the growth of mold and bacteria. The interior of the Barrier System will incorporate an all weather film laminate technology to further enhance resistance to moisture migration and MVT. This department will only accept offers from potential suppliers who can provide laboratory test reports indicating that the ballistic panel Barrier System being offered provides the following minimum protection on a per lot basis:

Characteristic	Requirement	Test Method
Determination of resistance to water penetration - Hydrostatic pressure test (mm)	> 10,000	ISO-811
Water Vapor Transmission (gms/sq mtr / 24 hrs)	< 550	ASTM E96 D (inverted)
Wet-flex after 24 hours	No delamination	BWW -24H
Resistance to water penetration after exposure to diesel fuel (psi)	>90 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to sea water (psi)	>100 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to alcohol (psi)	>100 <u>1/</u>	ASTM D751

*** Each fabric shall be completely submerged in particular fluid for a period of 24 hours and line-dried.*

15. VEST OUTER CARRIER MATERIAL

Removable Carrier

The machine washable carrier shall be removable from the ballistic panels for laundering. The carrier systems body side fabric shall consist of smooth fit micro-fiber with Nano Technology micro-encapsulated phase change temperature regulation and Anti-Microbial bacteria, mold and mildew detergent. To eliminate uncomfortable body side seams and bulges, there shall be no zippers or hook & loop closures against the body. The exterior of the outer-shell will utilize Super-Suede Micro-Fiber (same as or better) with a mid-torso horizontal zipper for improved insertion and removal of the ballistic panel cover. Low profile loop will be used for strap attachment points to reduced bunching and pulling of the uniform shirt. The interior of the carrier at the shoulders shall have attachment points made of low profile loop to allow for internal suspension of the ballistic panel via tabs of hook. This enables the wearer to utilize separate external shoulder straps. In addition, the carrier shall be designed so that it can accommodate the Self Suspending Ballistic System (SSBS). **No substitutes will be accepted.** The outer shell carriers shall include front and rear 5” x 8” / 8” x 10” combination plate pockets designed to accommodate trauma, ballistic or blade inserts.

Carrier shall be manufactured from a dimensionally stable first quality material with less than 5% shrinkage. The outer side of the carrier shall be manufactured from first quality Super-Suede Micro-Fiber (same as or better), and have a Soil Resistant Finish (SRF). All fabrics shall have no visible fabric or color flaws.

16. QUALITY CONTROL

The awarded vendor must maintain a ANSI/ISO/ ASQ Q9001-2000 Certification quality program. The documented quality control system must be designed to insure the integrity and quality of the manufactured products. The quality control system shall control all manufacturing process and incoming raw materials. The vendor must have an in-house ballistic laboratory capable of performing ballistic testing of incoming raw materials and in-process samples. The vendor must have the capability of performing testing in accordance with MIL-STD-662F and NIJ Standard 0101.04. Procedures for lot testing of incoming raw materials and in-process samples must be incorporated into the quality control system.

All incoming ballistic material shall undergo V50 ballistic lot tests in accordance with MIL-STD-662F with exception of using a clay backing conditioned in accordance with the requirements of NIJ 0101.04.

Every vest panel manufactured shall be inspected for material defects, proper ply counts, and for proper ballistic panel stitching. Covers and accessories shall be re-inspected during manufacturing for defects at selected points during manufacturing to assure the absence of hidden defects in the final item.

In addition, each vest shall receive a final inspection prior to shipment. This inspection shall include a review of the quality control check sheet and confirm the product against the customer's order.

17. SERIAL NUMBERS

Each unit of soft body armor delivered shall have an individual serial number. Each serialized soft body armor shall be traceable to its original ballistic material lot number and ballistic material mill roll number. Additionally the soft body armor serial number shall be traceable to an incoming material lot test and ballistic panel lay-up lot test.

18. LOT TESTING

All incoming ballistic material shall undergo V50 ballistic lot test in accordance with MIL-STD-662F except that the test will be conducted on clay backing which meets the requirements of NIJ Standard 0101.04 for backing material.

19. MEASUREMENTS AND FITTING:

Custom Measuring

Unless otherwise stated, individual measurements will be taken of each user. Each delivered vest shall fit in accordance with the following guidelines:

1. The side edges of the front and back ballistic panels shall be fit for within a two-inch (2") gap between panels during the initial custom fitting.
2. The bottom edge of the front ballistic panel shall be within inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in a relaxed seated position.
3. The bottom edge of the back panel shall be within one-inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in the standing position.

Female sizes are determined based on individual measurements, including bust size.

20. FIT AND ALTERATION POLICY

The manufacturer shall perform all required alterations of more than one inch within 30 days after original shipment of the product at no charge. Adjustments of an inch or less than an inch can be accomplished by utilizing the adjustable strap feature on the vest.

21. WARRANTIES:

1. Vendor shall warrant the ballistic panels to be free from defects in workmanship and materials for a minimum of five (5) years.
2. Vendor shall warrant the carriers to be free from defects in workmanship and materials for a minimum of two (2) years.
3. Any vest found to be defective during the warranty period shall be replaced by the Vendor at no cost to the County. Such replacement shall be within ten working days.
4. Ill-fitting ballistic resistant body armor vest(s) shall be viewed, re-measured, and altered if deemed necessary to comply with proper fit on officers, and shall be performed within thirty(30) calendar days of notification.
5. County shall notify vendor of ill-fitting or defective vests within forty (40) calendar days of receipt of goods.

22. PACKAGING

All soft body armor shall be packaged and shipped consistent with good commercial practices.

Shipping Cartons: The soft body armor shall be packed into suitable corrugated cardboard box. The box shall allow for normal shipping without damage to the soft body armor.

23. DOCUMENTATION

The following documents, certifications, test-reports and samples must be included with the vendor's bid. Failure to submit the following shall be cause for rejection:

1. Models made by manufacturers must be clearly identified and shall include the following:
 - a. Full product description.
 - b. Complete bid sample, male and female.
 - c. Drawings and/or photographs.
 - d. Technical specifications.
2. NIJ 0101.04 / NIJ 2005 Interim Requirements certification and test reports from an accredited laboratory for the vest being certified.
3. V50 test reports performed in accordance with MIL-STD-662F. V50 testing must be accomplished with clay backing.
 - a. V50 test reports must be submitted for the ballistic package for both NIJ calibers for that class.
4. Quality Control Procedures.
 - a. Incoming materials
 - b. Lay-up configuration
 - c. In-process configuration
 - d. Testing verification
 - e. Inspection of ballistic panel stitching
 - f. Random final product inspection and continuous in-process surveillance
 - g. Quality Assurance training and indoctrination
5. Documentation stating the coverage and limitations of the 5-year ballistic package warranty.

6. Documentation stating the coverage and limitations of the 24-month outer-shell cover warranty.

**Technical Specifications
Level II
Concealable Armor**

Ballistic Material	Woven Aramid
NIJ	Level II
Weight	10.6 Oz. / .66 lbs. Sq. Ft. (+/- 5%)
Thickness	.18 inches (+/- 5%)

	9mm	357 Mag
V50 (fps)	1664	1644
V50 (m/s)	507	501
BFS (mm)	32	39
BFS (in)	1.26	1.53

DRAFT

LEVEL IIIA VESTS

OPTION A

1. SCOPE

The soft body armor system shall meet the NIJ STD. 0101.04 / NIJ 2005 Interim Requirements, Threat Level IIIA. Bids based on body armor models made by manufacturers must be clearly identified as such, and bidders must include full product description, a complete bid sample, male and female, drawings and/or photographs, technical specifications.

Where the apparent low bidder has proposed an alternate product, that bidder shall demonstrate product equivalency to the satisfaction of the department. Evidence of equivalency shall be presented for each requirement of this specification, and the burden of such equivalency in entirety on the vendor. Any bidder may be required, at any time during the procurement process, to provide documentation proving compliance with any or all the terms of this specification.

Only body armor models, which have been tested by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC), and found to comply with the requirements of NIJ STD. 0101.04 / NIJ 2005 Interim Requirements for Type IIIA armor, shall be submitted under this specification.

Bids with multiple models, as alternates will be rejected.

2. SILENCE OF SPECIFICATIONS

Commercially accepted practices shall apply to any detail not covered in this specification and to any omission of this specification. Any omission or question of interpretation of the specification which affects the ballistic performance or integrity of the soft body armor being offered shall be addressed in writing and submitted with the bid.

3. PROTEST

Any protest based on the selection and performance criteria of this specification will be disregarded.

4. APPLICABLE DOCUMENTS

The following list of standards and specifications in effect on the date of this solicitation shall form a part of this specification.

1. National Institute of Justice, NIJ STD. 0101.04 / NIJ 2005 Interim Requirements, Ballistic Resistance of Police Body Armor
2. MIL-STD-662F, V50 Ballistic Test for Armor
3. ASTM D 6193, Standard Practices for Stitches and Seams.
4. ANSI/ISO/ ASQ Q9001-2000 Certification.

Requirements of this specification shall take precedence over the above referenced standards and specifications.

5. PURCHASE REQUIREMENTS

The successful bidder must be a recognized wholesaler/retailer, which maintains a convenient location for measurement, fitting and service during regular business hours Monday through Friday or have a sales representative made available to measure at each County Department.

6. SPECIFIC QUANTITY

Hidalgo County has the right to determine quantity, if not otherwise specified in the procurement document. Of the total quantity purchased, both male and female products will be represented. The department retains the right to adjust the total quantities, while maintaining the accepted bid price, without notification to vendor. The term of the contract, including extensions, and/or escalation clauses, shall be stated in the bid document.

7. DESIGN REQUIREMENTS

The Intended use of the soft body armor system detailed herein is intended to be standard issue armor. It is intended for routine daily wear as an undergarment or as the ballistic inserts in a tactical outer garment.

The soft body armor shall be designed to provide:

1. Light and thin NIJ certified armor in Level IIIA.
2. A high degree of concealment and comfort.
3. Minimum restriction of motion or mobility.
4. Optional carriers to allow for laundering and color changes.
5. Provide resistance against the labeled projectiles in accordance with the NIJ STD. 0101.04 / NIJ 2005 Interim Requirements.

8. GENERAL DESIGN

The ballistic panels of soft body armor system meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor system shall be designed for regular daily wear as an undergarment or in a tactical garment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level IIIA, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and

mobility.

1. CONCEALABLE DESIGN

The ballistic panels of soft body armor meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor shall be designed for regular daily wear as an undergarment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level IIIA, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and concealment. The general configuration shall be the slipover vest type that covers the majority of the upper torso, including side coverage. Two removable/replaceable elastic shoulder straps and four removable/replaceable elastic waist straps with hook and pile fasteners shall provide proper positioning and comfort. The entire vest perimeter shall be curved. No sharp corners or straight edges shall be allowed.

The front ballistic panel shall cover the chest approximately up to the collar bone, have a scooped neck sufficient to maintain conceal ability when wearing an open collar shirt, extend downward to the waist but not far enough to "push up into the throat" when the wearer is seated, and extend around the sides to provide side protection. The biceps/chest region shall be cut with sufficient space to minimize irritation and restriction of arm movement during common duties such as the operation of motor vehicles. The outer shell carriers shall include front and rear 5" x 8" / 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts. The rear ballistic panel shall cover the back of the torso from just above the shoulder blades down to a position above the waist belt. In addition, unless otherwise stated, the maximum gap at each side shall be two inches.

Female models shall be designed specifically for the female torso and shall have allowances for bust configuration.

Panels shall be equipped with an integral self suspending ballistic system (SSBS). The SSBS must provide direct support to the ballistic panels to keep them sagging and creasing at the bottom of the carrier.

Each piece of soft body armor shall include the following:

1. One (1) set of ballistic panels.
2. Integral Self Suspending Ballistic System (SSBS).
3. Four (4) removable/replaceable 4 point 2" elastic waist straps.
4. One (1) complete washable Carrier System.
5. Front and Rear 5" x 8" / 8" x 10" Combo pockets.
6. One (1) trauma reduction insert.
7. Two (2) removable/replaceable shoulder straps.

9. ADDITIONAL COMPLETE CARRIER SYSTEM

Selected Colors: tan, black or blue only

1. Integral Self Suspending Ballistic System (SSBS).
2. Four (4) removable/replaceable 4 point 2" elastic waist straps.
3. Front and Rear 5" x 8" / 8" x 10" Combo pockets.
4. Two (2) removable/replaceable shoulder straps.

10. BALLISTIC PANEL MATERIALS

All materials shall be new, unused and without flaws that affect appearance, durability and function.

the ballistic panels shall be constructed of a matrix of woven Aramid fabric, Aramid UD and polyethylene UD. No other ballistic material shall be used.

As the department has selected these materials, any bids, which represent products manufactured from other materials, shall be rejected. Accordingly, all bidders shall include a letter from the manufacturer stating that the products being submitted for consideration are manufactured from 100% first quality woven Aramid fabric, Aramid UD and polyethylene UD.

11. PANEL CONSTRUCTION

All vests, which are submitted, shall represent armor, which in layer count, is uniform throughout the ballistic panel. Accordingly, any ballistic panel, which is not uniform, in layer count, throughout the entire ballistic package, shall be rejected.

It is the intent of Hidalgo County to procure the lightest weight, best performing personal armor available in relation to areal density, therefore, a vest section of 12" x 12" (one square foot), must not exceed 14.4oz. (.90 lbs.) per square foot for NIJ level IIIA. (+/- 5%)

12. BALLISTIC PANEL PERFORMANCE

V50 Performance

Each bidder shall submit V50 test reports for the vest being offered. The V50 test shall be performed in accordance with MIL-STD-662F using NIJ STD. 0101.04 / NIJ 2005 Interim Requirements test projectiles. The test must be performed by an independent laboratory approved by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC) for testing in accordance with NIJ STD. 0101.04 / NIJ 2005 Interim Requirements. The V 50 test shall be against clay backing. V 50 reports, which represent testing without clay backing, shall be rejected. Vendor shall provide written certification that all V 50 testing is accomplished with clay backing; failure to provide certification shall be cause for rejection.

Test reports submitted by the bidder shall reflect the following minimum test results for a 14.4oz. (.90 lbs.) per square foot test sample. (+/- 5%). Bid submissions, which do not meet this requirement, will be rejected.

	9mm	44 Mag
V50 (fps)	1863	1643
V50 (m/s)	568	501
BFS (mm)	30	42
BFS (in)	1.18	1.65

13. LABELING

Label material shall withstand normal wear and cleaning and remain readable during the entire warranted life of the armor or carrier.

All soft body armor shall be labeled in strict adherence to the labeling requirement set forth in NIJ STD. 0101.04 / NIJ 2005 Interim Requirements. The ballistic panel labeling shall include, but not be limited to the following:

1. Name of Manufacturer
2. Level of Protection
3. NIJ STD. 0101.04 / NIJ 2005 Interim Requirements
4. Date of Manufacture
5. Size
6. Serial Number
7. Model of Vest
8. Care Instructions

14. BALLISTIC PANEL COVER MATERIAL (Heat Sealed)

Hidalgo County recognizes the importance of protecting the ballistic panel from exposure to environmental elements. Also, **The County** is aware that high degrees of “moisture Vapor Transmission” (WVT) through the ballistic panel cover may allow moisture to migrate into the fibrous structure of the ballistic panel thus causing a reduction in ballistic performance. **Therefore, potential bidders who offer ballistic panel covers that claim to “Breathe” or allow high levels of “Moisture Vapor Transmission” to pass through them will not be considered. Hidalgo County** will only consider armor systems that incorporate a Ballistic Panel Barrier System. The Barrier System must exhibit a high degree of water repellency and resistance to MVT. The Barrier system will have a water repellent treatment on its exposed surface that resists moisture and staining. In addition, the Barrier System will incorporate a Nano-Technology, Anti-Microbial/Anti-Fungal treatment that inhibits the growth of mold and bacteria. The interior of the Barrier System will incorporate an all weather film laminate technology to further enhance resistance to moisture migration and MVT. **Hidalgo County** will only accept offers from potential suppliers who can provide laboratory test reports indicating that the ballistic panel Barrier System being offered provides the following minimum protection on a per lot basis:

Characteristic	Requirement	Test Method
Determination of resistance to water penetration - Hydrostatic pressure test (mm)	> 10,000	ISO-811
Water Vapor Transmission (gms/sq mtr / 24 hrs)	< 550	ASTM E96 D (inverted)
Wet-flex after 24 hours	No delamination	BWW –24H
Resistance to water penetration after exposure to diesel fuel (psi)	>90 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to sea water (psi)	>100 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to alcohol (psi)	>100 <u>1/</u>	ASTM D751

*** Each fabric shall be completely submerged in particular fluid for a period of 24 hours and line-dried.*

15. VEST OUTER CARRIER MATERIAL

Removable Carrier

The machine washable carrier shall be removable from the ballistic panels for laundering. The carrier systems body side fabric shall consist of moisture wicking mesh. To eliminate uncomfortable body side seams and bulges, there shall be no zippers or hook & loop closures against the body. The exterior of the outer-shell will utilize Super-Suede Micro-Fiber (**same as or better**) with a mid-torso horizontal zipper for improved insertion and removal of the ballistic panel cover. Low profile loop will be used for strap attachment points to reduced bunching and pulling of the uniform shirt. The interior of the carrier at the shoulders shall have attachment points made of low profile loop to allow for internal suspension of the ballistic panel via tabs of hook. This enables the wearer to utilize separate external shoulder straps. In addition, the carrier shall be designed so that it can accommodate the Self Suspending Ballistic System (SSBS). **No substitutes will be accepted.** The outer shell carriers shall include front and rear 5” x 8” / 8” x 10” combination plate pockets designed to accommodate trauma, ballistic or blade inserts.

Carrier shall be manufactured from a dimensionally stable first quality material with less than 5% shrinkage. The outer side of the carrier shall be manufactured from first quality Super-Suede Micro-Fiber (**same as or better**), and have a Soil Resistant Finish (SRF). All fabrics shall have no visible fabric or color flaws.

16. QUALITY CONTROL

The awarded vendor must maintain a ANSI/ISO/ ASQ Q9001-2000 Certification quality program. The documented quality control system must be designed to insure the integrity and quality of the manufactured products. The quality control system shall control all manufacturing process and incoming raw materials. The vendor must have an in-house ballistic laboratory capable of performing ballistic testing of incoming raw materials and in-process samples. The vendor must have the capability of performing testing in accordance with MIL-STD-

662F and NIJ STD. 0101.04 / NIJ 2005 Interim Requirements. Procedures for lot testing of incoming raw materials and in-process samples must be incorporated into the quality control system.

All incoming ballistic material shall undergo V50 ballistic lot tests in accordance with MIL-STD-662F.

Every vest panel manufactured shall be inspected for material defects and proper ply counts. Every vest panel manufactured shall be subsequently inspected for proper ballistic panel stitching. Covers and accessories shall be re inspected during manufacturing for defects at selected points during manufacturing to assure the absence of hidden defects in the final item.

In addition, each vest shall receive a final inspection prior to shipment. This inspection shall include a review of the quality control check sheet and confirm the product against the customer's order.

17. SERIAL NUMBERS

Each unit of soft body armor delivered shall have an individual serial number. Each serialized soft body armor shall be traceable to its original ballistic material lot number and ballistic material mill roll number. Additionally the soft body armor serial number shall be traceable to an incoming material lot test and ballistic panel lay-up lot test.

18. LOT TESTING

All incoming ballistic material shall undergo V50 ballistic lot test in accordance with MIL-STD-662F except that the test will be conducted on a clay backing which meets the requirements of NIJ STD. 0101.04 / NIJ 2005 Interim Requirements for backing material.

19. MEASUREMENTS AND FITTING:

Concealable Custom Measuring

Unless otherwise stated, individual measurements will be taken of each user. Each delivered vest shall fit in accordance with the following guidelines:

1. The side edges of the front and back ballistic panels shall be fit for within a two-inch (2") gap between panels during the initial custom fitting.
2. The bottom edge of the front ballistic panel shall be within inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in a relaxed seated position.
3. The bottom edge of the back panel shall be within one-inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in the standing position.

Female sizes are determined based on individual measurements, including bust size.

20. FIT AND ALTERATION POLICY

The vendor shall perform all required alterations of more than one inch within 30 days after original shipment of the product at no charge. Adjustments of an inch or less than an inch can be accomplished by utilizing the adjustable strap feature on the vest.

21. WARRANTIES:

1. Vendor shall warrant the ballistic panels to be free from defects in workmanship and materials for a minimum of five (5) years.
2. Vendor shall warrant the carriers to be free from defects in workmanship and materials for a minimum of two (2) years.
3. Any vest found to be defective during the warranty period shall be replaced by the Vendor at no cost to the County. Such replacement shall be within ten working days.
4. Ill-fitting ballistic resistant body armor vest(s) shall be viewed, re-measured, and altered if deemed necessary to comply with proper fit on officers, and shall be performed within thirty(30) calendar days of notification.
5. County shall notify vendor of ill-fitting or defective vests within forty (40) calendar days of receipt of goods.

22. PACKAGING

All soft body armor shall be packaged and shipped consistent with good commercial practices. Shipping Cartons: The soft body armor shall be packed into suitable corrugated cardboard box. The box shall allow for normal shipping without damage to the soft body armor.

23. DOCUMENTATION

The following documents, certifications, test-reports and samples must be included with the vendor's bid. Failure to submit the following shall be cause for rejection:

1. Models made by manufacturers must be clearly identified and shall include the following:
 - a. Full product description.
 - b. Complete bid sample, male and female.
 - c. Drawings and/or photographs.
 - d. Technical specifications.
2. NIJ 0101.04 / NIJ 2005 Interim Requirements certification and test reports from an accredited laboratory for the vest being certified.
3. V50 test reports performed in accordance with MIL-STD-662F. V50 testing must be accomplished with clay backing. A V50 test reports must be submitted for the ballistic package for both NIJ calibers for that class.
4. Quality Control Procedures.
 - a. Incoming materials
 - b. Lay-up configuration
 - c. In-process configuration
 - d. Testing verification
 - e. Inspection of ballistic panel stitching

- f. Random final product inspection and continuous in-process surveillance
- g. Quality Assurance training and indoctrination
- 5. Documentation stating the coverage and limitations of the 5-year ballistic package warranty.
- 6. Documentation stating the coverage and limitations of the 24-month outer-shell cover warranty.

Technical Specifications
Level IIIA
Concealable /Tactical Armor System

Ballistic Material	Aramid fabric - Aramid UD Polyethylene UD
NIJ Level	IIIA
Weight	14.4 Oz. / .90 lbs. Sq. Ft. (+/- 5%)
Thickness.	190 inches

	9mm	44 Mag
V50 (fps)	1863	1643
V50 (m/s)	568	501
BFS (mm)	30	42
BFS (in)	1.18	1.65

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LEVEL IIIA VESTS OPTION B

1. SCOPE

The soft body armor system shall meet NIJ 0101.04 / NIJ 2005 Interim Requirements, for Threat Level IIIA. Bids based on body armor models made by manufacturers must be clearly identified as such, and bidders must include full product description, a complete bid sample, male and female, drawings and/or photographs, technical specifications.

Where the apparent low bidder has proposed an alternate product, that bidder shall demonstrate product equivalency to the satisfaction of the department. Evidence of equivalency shall be presented for each requirement of this specification, and the burden of such equivalency in entirety on the vendor. Any bidder may be required, at any time during the procurement process, to provide documentation proving compliance with any or all the terms of this specification.

Only body armor models, which have been tested by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC), and found to comply with NIJ Standard 0101.04, Ballistic Resistance of Police Body Armor and NIJ 2005 Interim Requirements for Type IIIA armor, shall be submitted under this specification. No exceptions.

Bids with multiple models, as alternates will be rejected.

2. SILENCE OF SPECIFICATIONS

Commercially accepted practices shall apply to any detail not covered in this specification and to any omission of this specification. Any omission or question of interpretation of the specification which affects the ballistic performance or integrity of the soft body armor being offered shall be addressed in writing and submitted with the bid.

3. PROTEST

Any protest based on the selection and performance criteria of this specification will be disregarded.

4. APPLICABLE DOCUMENTS

The following list of standards and specifications in effect on the date of this solicitation shall form a part of this specification.

1. National Institute of Justice, Standard NIJ-STD-0101.04, Ballistic Resistance of Police Body Armor / NIJ 2005 Interim Requirements
2. MIL-STD-662F, V50 Ballistic Test for Armor
3. ASTM D 6193, Standard Practices for Stitches and Seams.
4. ANSI/ISO/ ASQ Q9001-2000 Certification

Requirements of this specification shall take precedence over the above referenced standards and specifications.

5. PURCHASE REQUIREMENTS

The successful bidder must be a recognized wholesaler/retailer, which maintains a convenient location for measurement, fitting and service during regular business hours Monday through Friday or have a sales representative made available to measure at each County Department.

6. SPECIFIC QUANTITY

Hidalgo County has the right to determine quantity, if not otherwise specified in the procurement document. Of the total quantity purchased, both male and female products will be represented. The department retains the right to adjust the total quantities, while maintaining the accepted bid price, without notification to vendor. The term of the contract, including extensions, and/or escalation clauses, shall be stated in the bid document.

7. DESIGN REQUIREMENTS

The Intended use of the soft body armor system detailed herein is intended to be standard issue armor. It is intended for routine daily wear as an undergarment or as the ballistic inserts in a tactical outer garment.

The soft body armor shall be designed to provide:

1. Light and thin NIJ certified armor in Level IIIA.
2. A high degree of concealment and comfort.
3. Minimum restriction of motion or mobility.
4. Optional carriers to allow for laundering and color changes.
5. Provide resistance against the labeled projectiles in accordance with the NIJ Standard 0101.04. / NIJ 2005

8. GENERAL DESIGN

The ballistic panels of soft body armor system meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor system shall be designed for regular daily wear as an undergarment or in a tactical garment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level IIIA, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and mobility.

1. CONCEALABLE DESIGN

The ballistic panels of soft body armor meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor shall be designed for regular daily wear as an undergarment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level IIIA, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and concealment. The general configuration shall be the slipover vest type that covers the majority of the upper torso, including side coverage. Two removable/replaceable elastic shoulder straps and four removable/replaceable elastic waist straps with hook and pile fasteners shall provide proper positioning and comfort. The entire vest perimeter shall be curved. No sharp corners or straight edges shall be allowed.

The front ballistic panel shall cover the chest approximately up to the collar bone, have a scooped neck sufficient to maintain conceal ability when wearing an open collar shirt, extend downward to the waist but not far enough to "push up into the throat" when the wearer is seated, and extend around the sides to provide side protection. The biceps/chest region shall be cut with sufficient space to minimize irritation and restriction of arm movement during common duties such as the operation of motor vehicles. The outer shell carriers shall include front and rear 5" x 8" / 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts.

The rear ballistic panel shall cover the back of the torso from just above the shoulder blades down to a position above the waist belt. In addition, unless otherwise stated, the maximum gap at each side shall be two inches.

Female models shall be designed specifically for the female torso and shall have allowances for bust configuration.

Panels shall be equipped with an integral self suspending ballistic system (SSBS). The SSBS must provide direct support to the ballistic panels to keep them sagging and creasing at the bottom of the carrier.

Each piece of soft body armor shall include the following:

1. One (1) set of ballistic panels.
2. Integral self suspending ballistic system (SSBS).
3. Removable 4 point 2" elastic waist straps
4. One (1) complete washable Carrier System
5. Front and Rear 5" x 8" / 8" x 10" Combo pockets.
6. One (1) Trauma Reduction insert.

9. ADDITIONAL COMPLETE CARRIER SYSTEM

Selected Colors: tan, black or blue only

1. Integral self suspending ballistic system (SSBS).
2. Removable 4 point 2" elastic waist straps
3. Front and Rear 5" x 8" / 8" x 10" Combo pockets.

10. BALLISTIC PANEL MATERIALS

All materials shall be new, unused and without flaws that affect appearance, durability and function.

The ballistic panels shall be constructed of a matrix of Aramid UD, Woven Para-Aramid fabric, and Polyethylene UD. No other ballistic material shall be used.

As the department has selected these materials, any bids, which represent products manufactured from other materials, shall be rejected. Accordingly, all bidders shall include a letter from the manufacturer stating that the products being submitted for consideration are manufactured from 100% first quality Aramid UD, Woven Para-Aramid fabric, and Polyethylene UD.

11. PANEL CONSTRUCTION

All vests, which are submitted, shall represent armor, which in layer count, is uniform throughout the ballistic panel. Accordingly, any ballistic panel, which is not uniform, in layer count, throughout the entire ballistic package, shall be rejected.

It is the intent of Hidalgo County to procure the lightest weight, best performing personal armor available in relation to Areal density, therefore, a vest section of 12" x 12" (one square foot), must not exceed 14.0 oz. (.88 lbs.) per square foot for NIJ level IIIA. Sample weights are (+/- 5%).

12. BALLISTIC PANEL PERFORMANCE

V50 Performance

Each bidder shall submit V50 test reports for the vest being offered. The V50 test shall be performed in accordance with MIL-STD-662F using NIJ Standard 0101.04 test projectiles. The test must be performed by an independent laboratory approved by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC) for testing in accordance with NIJ Standard 0101.04. The V 50 test shall be against clay backing. V 50 reports, which represent testing without clay backing, shall be rejected. Vendor shall provide written certification that all V 50 testing is accomplished with clay backing; failure to provide certification shall be cause for rejection. Test reports submitted by the bidder shall reflect the following minimum test results for a 14.0 oz. (.88 lbs.) per square foot test sample. Blunt trauma reduction is an important aspect of armor design. Sample weights are (+/- 5%). Blunt trauma reduction is also an important aspect of armor design.

	9mm	44 Mag
V50 (fps)	1822	1690
V50 (m/s)	555	515
BFS (mm)	28	42
BFS (in)	1.10	1.65

Special Threat Performance

In addition, each bidder shall submit V50 test reports for the vest being offered for the Special Threats listed below and shall reflect the following minimum test results.

9mm 115gr S&B	9mm 127gr SXT	357sig 125gr	2gr RCC	4gr RCC	16gr RCC	17gr FSP	64gr RCC
1799	na	1744	2567	2319	2012	1882	1696

Bid submissions, which do not meet these ballistic performance requirement, will be rejected.

13. LABELING

Label material shall withstand normal wear and cleaning and remain readable during the entire warranted life of the armor or carrier.

All soft body armor shall be labeled in strict adherence to the labeling requirement set forth in NIJ Standard 0101.04 / NIJ 2005 Interim Requirements. The ballistic panel labeling shall include, but not be limited to the following:

1. Name of Manufacture
2. Level of Protection
3. NIJ 2005 Interim Requirements
4. Date of Manufacture
5. Size
6. Serial Number
7. Model of Vest
8. Care Instructions

14. BALLISTIC PANEL COVER MATERIAL (Heat Sealed)

This department recognizes the importance of protecting the ballistic panel from exposure to environmental elements. Also, the department is aware that high degrees of "moisture Vapor Transmission" (WVT) through the ballistic panel cover may allow moisture to migrate into the fibrous structure of the ballistic panel thus causing a reduction in ballistic performance. **Therefore, potential bidders who offer ballistic panel covers that claim to "Breathe" or allow high levels of "Moisture Vapor Transmission" to pass through them will not be considered.** This department will only consider armor systems that incorporate a Ballistic Panel Barrier System. The Barrier System must exhibit a high degree of water repellency and resistance to MVT. The Barrier system will have a water repellent treatment on its exposed surface that resists moisture and staining. In addition, the Barrier System will incorporate a Nano-Technology, Anti-Microbial/Anti-Fungal treatment that inhibits the growth of mold and bacteria. The interior of the Barrier System will incorporate an all weather film laminate technology to further enhance resistance to moisture migration and MVT. This department will only accept offers from potential suppliers who can provide laboratory test reports indicating that the ballistic panel Barrier System being offered provides the following minimum protection on a per lot basis:

Characteristic	Requirement	Test Method
Determination of resistance to water penetration - Hydrostatic pressure test (mm)	> 10,000	ISO-811
Water Vapor Transmission (gms/sq mtr / 24 hrs)	< 550	ASTM E96 D (inverted)
Wet-flex after 24 hours	No delamination	BWW -24H
Resistance to water penetration after exposure to diesel fuel (psi)	>90 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to sea water (psi)	>100 <u>1/</u>	ASTM D751
Resistance to water penetration after exposure to alcohol (psi)	>100 <u>1/</u>	ASTM D751

** Each fabric shall be completely submerged in particular fluid for a period of 24 hours and line-dried.

15. CONCEALABLE VEST OUTER CARRIER MATERIAL

Removable Carrier

The machine washable carrier shall be removable from the ballistic panels for laundering. The carrier systems body side fabric shall consist of smooth fit SFT™ micro-fiber with Nano Technology micro-encapsulated phase change temperature regulation and Anti-Microbial bacteria, mold and mildew deterrent. To eliminate uncomfortable body side seams and bulges, there shall be no zippers or hook & loop

closures against the body. The exterior of the outer-shell will utilize Super-Suede Micro-Fiber with a mid-torso horizontal zipper for improved insertion and removal of the ballistic panel cover. Low profile loop will be used for strap attachment points to reduced bunching and pulling of the uniform shirt. The interior of the carrier at the shoulders shall have attachment points made of low profile loop to allow for internal suspension of the ballistic panel via tabs of hook. This enables the wearer to utilize separate external shoulder straps. In addition, the carrier shall be designed so that it can accommodate the Self Suspending Ballistic System (SSBS). The outer shell carriers shall include front and rear 5" x 8" / 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts. ***The outer-shell shall incorporate ThorShield™ technology to provide protection against TASER® devices and other similar types of Electro-Muscular Disruption (EMD) shock weapons. Outer shells that do not incorporate ThorShield™ technology will not be accepted.***

Carrier shall be manufactured from a dimensionally stable first quality material with less than 5% shrinkage. The outer side of the carrier shall be manufactured from first quality Super-Suede Micro-Fiber, and have a Soil Resistant Finish (SRF). All fabrics shall have no visible fabric or color flaws.

16. QUALITY CONTROL

The awarded vendor must maintain a ANSI/ISO/ ASQ Q9001-2000 Certification quality program. The documented quality control system must be designed to insure the integrity and quality of the manufactured products. The quality control system shall control all manufacturing process and incoming raw materials. The vendor must have an in-house ballistic laboratory capable of performing ballistic testing of incoming raw materials and in-process samples. The vendor must have the capability of performing testing in accordance with MIL-STD-662F and NIJ Standard 0101.04. Procedures for lot testing of incoming raw materials and in-process samples must be incorporated into the quality control system.

All incoming ballistic material shall undergo V50 ballistic lot tests in accordance with MIL-STD-662F with exception of using a clay backing conditioned in accordance with the requirements of NIJ 0101.04.

Every vest panel manufactured shall be inspected for material defects, proper ply counts, and for proper ballistic panel stitching. Covers and accessories shall be re-inspected during manufacturing for defects at selected points during manufacturing to assure the absence of hidden defects in the final item.

In addition, each vest shall receive a final inspection prior to shipment. This inspection shall include a review of the quality control check sheet and confirm the product against the customer's order.

17. SERIAL NUMBERS

Each unit of soft body armor delivered shall have an individual serial number. Each serialized soft body armor shall be traceable to its original ballistic material lot number and ballistic material mill roll number. Additionally the soft body armor serial number shall be traceable to an incoming material lot test and ballistic panel lay-up lot test.

18. LOT TESTING

All incoming ballistic material shall undergo V50 ballistic lot test in accordance with MIL-STD-662F except that the test will be conducted on clay backing which meets the requirements of NIJ Standard 0101.04 for backing material.

19. MEASUREMENTS AND FITTING:

Concealable Custom Measuring

Unless otherwise stated, individual measurements will be taken of each user. Each delivered vest shall fit in accordance with the following guidelines:

1. The side edges of the front and back ballistic panels shall be fit for within a two-inch (2") gap between panels during the initial custom fitting.
2. The bottom edge of the front ballistic panel shall be within inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in a relaxed seated position.
3. The bottom edge of the back panel shall be within one-inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in the standing position.

Female sizes are determined based on individual measurements, including bust size.

20. FIT AND ALTERATION POLICY

The manufacturer shall perform all required alterations of more than one inch within 30 days after original shipment of the product at no charge. Adjustments of an inch or less than an inch can be accomplished by utilizing the adjustable strap feature on the vest.

21. WARRANTIES:

1. Vendor shall warrant the ballistic panels to be free from defects in workmanship and materials for a minimum of five (5) years.
2. Vendor shall warrant the carriers to be free from defects in workmanship and materials for a minimum of two (2) years.
3. Any vest found to be defective during the warranty period shall be replaced by the Vendor at no cost to the County. Such replacement shall be within ten working days.
4. Ill-fitting ballistic resistant body armor vest(s) shall be viewed, re-measured, and altered if deemed necessary to comply with proper fit on officers, and shall be performed within thirty(30) calendar days of notification.

County shall notify vendor of ill-fitting or defective vests within forty (40) calendar days of receipt of goods

22. PACKAGING

All soft body armor shall be packaged and shipped consistent with good commercial practices. Shipping Cartons: The soft body armor shall be packed into suitable corrugated cardboard box. The box shall allow for normal shipping without damage to the soft body armor.

23. DOCUMENTATION

The following documents, certifications, test-reports and samples must be included with the vendor’s bid. Where one manufacturer is bidding through multiple vendors, the manufacturer may submit the appropriate paperwork on behalf of all vendors. Failure to submit the following shall be cause for rejection:

1. Models made by manufacturers must be clearly identified and shall include the following:
 - a. Full product description.
 - b. Complete bid sample, male and female.
 - c. Drawings and/or photographs.
 - d. Technical specifications.
2. NIJ 0101.04 / NIJ 2005 Interim Requirements certification and test reports from an accredited laboratory for the vest being certified.
3. V50 test reports performed in accordance with MIL-STD-662F. V50 testing must be accomplished with clay backing.
 - a. V50 test reports must be submitted for the ballistic package for both NIJ calibers for that class.
4. Quality Control Procedures.
 - a. Incoming materials
 - b. Lay-up configuration
 - c. In-process configuration
 - d. Testing verification
 - e. Inspection of ballistic panel stitching
 - f. Random final product inspection and continuous in-process surveillance
 - g. Quality Assurance training and indoctrination
5. Documentation stating the coverage and limitations of the 5-year ballistic package warranty.
6. Documentation stating the coverage and limitations of the 24-month outer-shell cover warranty.

**Technical Specifications
Level IIIA
Concealable/Tactical Armor System**

Ballistic Material	Aramid UD - Woven Aramid - Polyethylene UD
NIJ Level	IIIA
Weight	14.0 Oz. / .88 lbs. Sq. Ft. (+/- 5%)
Thickness	.19 inches (+/- 5%)

	9mm	44 Mag
V50 (fps)	1822	1690
V50 (m/s)	555	515
BFS (mm)	28	42
BFS (in)	1.10	1.65

Special Threats

9mm 115gr S&B	9mm 127gr SXT	357sig 125gr	2gr RCC	4gr RCC	16gr RCC	17gr FSP	64gr RCC
1799	na	1744	2567	2319	2012	1882	1696

1. TERMS, CONDITIONS and OTHER REQUIREMENTS:

1. TERM OF CONTRACT is for two (2) year period with County's option to extend the contract for an additional year under the same rates, terms and conditions.
2. Hidalgo County reserves the right to continue this bid for an additional sixty (60) days grace period at the end of the contract term for unforeseen delay in award of new bid for next contract term.
3. Hidalgo County reserves the right to seek purchases for "bulletproof vests (soft body armors)" from state contracts whenever it is in the best interest to do so.
4. The insurance requirements for this project is general liability and automotive insurance workers compensation will be required if the bidder will be utilizing company owned delivery truck (s) for delivery. (Refer to Exhibit "C" for limits).
5. The contract for this project will be used by any Hidalgo County Law Enforcement.
6. All purchases of bulletproof vests (soft body armor) and additional complete washable Carrier System will be on "an as needed basis" only. There is no guarantee on purchasing volume. Selected Colors: tan, black or blue only
7. Hidalgo County reserves the right to purchase additional complete carriers systems on as needed basis for the replacement of worn or torn carriers. Selected Colors: tan, black or blue only
8. Awarded vendor will deliver the bulletproof vests (soft body armors) within thirty (30) to sixty (60) days from orders being placed.
9. The awarded vendor will have a representative made available to measure any and/or all participating county departments.
10. Vendor must submit one (1) sample bulletproof vest male or female per level per option (at least a total of four (4) samples) at no charge to the county with the bid for review and inspection by the Hidalgo County. Arrangements will be made with the vendor to return all bulletproof vests (soft body armors) at no charge to the county.
11. All bid prices for items shall take into consideration shipping and handling costs (all extra charges), on bulletproof vests (soft body armors) and any other items mentioned in the specifications as part of the fixed item price.
12. Hidalgo County reserves the right to award to **MULTIPLE** vendors if the County determines it is in its best interest to do so.
13. Prices must be firm for the entire contract period and each consecutive contract period.
14. Any contract awarded to a successful bidder will be in effect until;
 - A.) The contract expires
 - B.) Delivery acceptance of products and/or performance of services ordered, or
 - C.) Terminated by County with thirty (30) day's written notice prior to be cancellation
15. Award the contract to the responsible bidder who submits the lowest and best bid or may reject all bids and issues a new solicitation. If two responsible bidders submit the lowest and best bid will be made to the responsible bidder(s) submitting the lowest bid prices for the items(s) as specified.
16. All costs and expenses associated with the preparation and submission of (bid, proposals, statement of qualifications and quotes) shall be responsibility of the participant and no reimbursements for such charges or expenses shall be passed on to HIDALGO COUNTY.
17. **PRE-BID CONFERENCE WILL BE HELD day, month, date, 2012 @ 10:00 A.M. at HIDALGO COUNTY PURCHASING DEPARTMENT's conference room. We encourage all participating bidder(s) to attend.**

2. MARKET VOLATILITY AND UNIT PRICE ADJUSTMENTS:

Hidalgo County recognizes that during periods of national crisis and unstable economic conditions, unforeseen price increases might affect costs for goods and services contracted on an annual basis. The following procedure may be employed to mediate price volatility:

- 1) **Requesting Price Adjustment:** Upon written request of the Vendor to the County Purchasing Agent, the County may review evidence of prevailing industry-wide market conditions that warrant an adjustment in bid prices contained in the contract.
 - A Vendor must tie any price change clause to an industry-wide or otherwise nationally recognized index, or some other form of verifiable document. Such written request must be accompanied by a certified copy of the supplier's advisory or notification to the vendor of the price changes.
 - The Vendor must put the Purchasing Agent on the mailing lists for such publications so that the Purchasing Agent can monitor said changes. Such membership shall be at no cost to the County.
 - The County Purchasing Agent retains the right to determine whether or not such proposed price changes are in the best interest of the County.
 - No price escalation will be authorized in excess of the amount of the increase referred to in the supplier's notice.

- The County may only grant a price increase if the evidence presented is deemed reliable. Should the County allow a price increase, the approved price change shall be honored for all orders received by the vendor or contractor after the effective date of such price change. Approved price changes are not applicable to orders already issued and in process at time of price change.
- 2) **Price Reduction:** Vendor shall notify the County at the time when the Vendor's costs for items and/or supplies reduce due to stabilization in the market at which time prices for items on this contract shall be reduced accordingly. Failure by the Vendor to notify the County of a decrease in costs for items and/or supplies for which the Vendor was granted a price adjustment, may result in immediate termination of this contract and the County shall not be obligated to pay the Vendor the difference between the contract price and the price adjustment.
 - 3) **Timeframe for Adjusted Price Increases:** Price increases are only valid for the quarter in which they are requested and approved. Prices shall return to the original contract price at the beginning of the following quarter unless a Vendor notifies the County in writing within ten (10) days of expiration of the quarter in which the price increase is in effect, that it desires to have the price increase continue or that the Vendor is requesting a different price increase for the following quarter. Such request must be supplemented with sufficient justification to demonstrate that the price increase remains necessary. The County Purchasing Department shall have sole discretion whether to grant the price increase extension. The County too, shall have discretion to unilaterally reduce, eliminate or extend a price adjustment to the Vendor at any time upon written notice from the County to the Vendor demonstrating justification for such reduction, elimination or extension of the price adjustment.
 - 4) **Allowable Review Periods:** Price adjustment reviews may only be requested by the Vendor on a quarterly basis. However, the County may at its own discretion, conduct temporary price adjustment reviews at any time. The County Purchasing Agent and/or the County Auditor reserve the right to audit and/or examine any pertinent books, documents, papers, records or invoices relating directly to the contract transaction in question after reasonable notice and during normal business hours.
 - 5) **Dollar Limit to Price Changes:** The total increase in contract price shall not exceed twenty-five percent (25%) of the original contract price during the contract term.

ADDITIONAL INFORMATION:

Further information required for this project can be addressed to, Elena Gomez, Buyer II, Hidalgo County Purchasing Department (956) 318-2626. Hidalgo County is requesting that any and all questions, inquiries, and clarifications regarding quotes, bids, proposals, or statement of qualifications be addressed to Martha L. Salazar, Purchasing Agent, 2802 South Business Highway 281, Edinburg, Texas 78539. **TELEPHONE INQUIRIES WILL NOT BE ACCEPTED.**

ALL WRITTEN INQUIRIES WILL BE ACCEPTED VIA FACSIMILE NO LATER THAN, day, month, date, 2012, 5:00 P.M. Responses will be sent to all applicants via facsimile by no later than, **day, month, date, 2012, 5:00 P.M.**