

SPECIFICATIONS

REFLECTIVE SHEETING & SUPPLIES FOR LICENSE PLATES

CONTRACT SCOPE/OVERVIEW: This Invitation for Bid (IFB) 6100049544 (identified here and in the other documents as the “Contract”) is being issued by the Pennsylvania Department of General Services (DGS) and will cover the requirements of the Commonwealth of Pennsylvania (Commonwealth) Agencies for Reflective Sheeting & Supplies for License Plates.

The contractor will be required to furnish reflective sheeting materials for the Bureau of Correctional Industries' manufacture of license plates. Vendor will furnish clear-coated reflective sheeting, overlamine, ink, thinner and any other supplies needed to apply the sheeting to the substrate. The vendor will dispose of, at no cost to the commonwealth, any hazardous waste from this operation. Vendor will provide technical service in support of the license plate facility at no cost to the commonwealth. This will include all transportation and expenses. The reflective sheeting provided must also be able to be used with the Bureau's application/feed registry system and must be capable of being properly centered when applied to the aluminum substrate.

BIDDING INFORMATION: The following documents are required to be completed and returned/attached with your electronic bid. These are in addition to any other requirements to submit documentation within the bid specifications. Bids may be rejected for failure to return required documents.

- Attachment A – State of Manufacture Chart (This is the Reciprocal Limitations Act GSPUR-89 included as Attachment A to this Solicitation)
- Attachment B – Iran Free Procurement Certification Form
- Attachment C – Lobbying Certification form
- List of individuals assigned to provide technical service and information, which shows that these individuals are qualified to provide services, such as certification, experience, or educational background. A technical service resume can be submitted for each individual assigned.
- Warranty information, certification and lab testing data as described under Warranty Terms and Conditions section contained within this specification.

SHEETING REQUIREMENTS:

Line item on IFB:

1 Passenger, Graphic 2 Color, White PA Outline	12 1/16” x 300 Yds.
2 Truck / Trailer, Graphic 2 Color, White PA Outline	12 1/16” x 300 Yds.
3 Motorcycle, Graphic 2 Color	7 1/16” x 200 Yds
4 ATV, Plain Straw sheeting	7 1/16” x 200 Yds. (All Terrain Vehicle)
5 Plain White (Digital Printing)	12 1/16” x 300 Yds.
6 Plain White (Digital Printing)	7 1/16” x 200 Yds.
7 Overlamine	12” x 300 Yds.
8 Overlamine	7” x 200 Yds.

REFLECTIVE SHEETING:

The reflective sheeting material to be utilized for the manufacture of the license plates for the Commonwealth must consist of lens elements enclosed within a transparent resin and have a pre-coated pressure sensitive adhesive backing protected by a removable liner. The clear coat must protect the design of the sheeting to insure a reliable long-term durability when finished according to the sheeting manufacturer's recommendation. If any indicator is placed on the reflective sheeting material to assist in the centering of the sheeting from top-to-bottom and side-to-side onto the aluminum substrate, it shall not interfere with or detract from the plate design.

Sheeting shall be available preprinted as outlined in the Graphic Designs section or plain white for use with digital thermal transfer print equipment, plain black or plain straw (Pantone 4515C) for the Department of Conservation and Natural Resources (DCNR), All Terrain Vehicle (ATV) plates. Material may be processed directly through blanking, embossing and finishing or may receive additional printing of logos via a digital thermal transfer printing process via a Matan Thermal Transfer Printer, as owned by the Bureau of Correctional Industries. When thermal transfer printing is done, a protective overlamine shall be applied.

OVERLAMINATE: (for digital thermal transfer use)

An Ultra-violet (UV) stabilized overlay shall be provided. The overlamine shall provide a high gloss protective finish for resistance to UV fading and abrasion. Overlamine shall have a removable protective layer covering the pressure sensitive adhesive. When properly applied to the reflective substrate, the material shall form a durable integral bond allowing for subsequent embossing and numeral coating, if required

GRAPHIC DESIGNS:

The graphic reflective sheeting for the 12 1/16" x 6" passenger issue plates must have the state name **PENNSYLVANIA** preprinted on the sheeting in the top (1 3/16") solid blue border (Pantone 295C) and centered. The state name PENNSYLVANIA must be approximately 5" in length and in Felbridge font style. There is also a heavy white outline of the State of Pennsylvania printed in the upper left corner. The website address on the bottom of the plate shall read **visitPA.com** and be centered in the lower (1 3/16") solid yellow border (Pantone 116C). The actual artwork needed to develop this plate can be obtained upon the bidder's request by contacting the commodity specialist named herein.

The truck/trailer plate and sheeting are the same size as the passenger issue. The colors and font style are the same as the passenger issue. **PENNSYLVANIA** appears at the top center and there is also a heavy white outline of the State of Pennsylvania printed in the upper left corner but there is nothing printed in the lower (1 3/16") solid yellow border (Pantone 116c).

The graphic reflective sheeting for the 7 1/16"x 4" regular issue plates must have the state name **PENNSYLVANIA** preprinted on the sheeting and centered at the top of the plate, and the letters **MC** preprinted on the sheeting and centered at the bottom. The colors and font style are the same as the passenger plate but sized to suit the application. The state name **PENNSYLVANIA** must be approximately 3" in length.

NUMERAL COATING:

The reflective sheeting will be roll coated. The sheeting applied to the plate will constitute the plate background color. The embossed character on the plate will be roll coated to provide uniform character colors. It will be the responsibility of the contractor to provide the inks, and other related supplies, for the roll coating of embossed plate characters.

Sheeting shall be compatible with alternate roll coat materials and application processes: solvent and UV curable inks or hot stamp ribbons. Separate pricing shall be provided for alternative inks / materials, as required.

The blue ink for the standard plates is Pantone 295C.

The green ink for the straw ATV plates is Pantone 3415C.

The red ink for the **EMERGENCY VEHICLE** plates is Pantone 186C.

PERFORMANCE STANDARDS

DIFFUSE DAYTIME COLOR:

Through instrumental color testing, the diffuse daytime color of all the reflective sheeting must conform to color requirements as determined spectrophotometrically in accordance with ASTM E-1164 and E-1349, utilizing either 45/0 or 0/45 degree illumination/viewing conditions as described in E-1164 and E-1349 for retro-reflective materials. Chromaticity and the Luminance Factor based on CIE tristimulus values for the 2° observer and Illuminant C reported by CIE 1931Y, x, y scale. The color specification limits for the background portion of the license plate are listed below.

Color Specification for Bid Testing

Chromaticity Coordinate

Color	Corner x	Points y	Luminance Factor Y%
White	.303	.287	42 minimum
	.274	.316	
	.328	.313	
	.300	.341	
Black	.310	.325	0.5 minimum
	.340	.355	
	.310	.355	
	.340	.325	
Straw (Pantone 4515C)	.355	.382	30 minimum
	.395	.412	
	.355	.412	
	.395	.382	

**Color Specification after Five (5) Years
Accelerated Weathering or Five (5) Years of Use**

Chromaticity Coordinate

Color	Corner x	Points y	Luminance Factor Y%
White	.303	.287	42 minimum
	.274	.316	
	.348	.333	
	.321	.361	
Black	.310	.325	0.5 minimum
	.340	.355	
	.310	.355	
	.340	.325	
Straw (Pantone 4515C)	.350	.380	30 minimum
	.390	.415	
	.350	.415	
	.390	.380	

THICKNESS:

The thickness of the clear-coated reflective sheeting material without the protective liner must be between 0.0045” and 0.0060” for reflective sheeting and 0.0020” to 0.0030” for the overlamine.

ADHESIVE and PROTECTIVE LINER:

The adhesive backing of the reflective sheeting and overlamine must have a pressure sensitive adhesive, which requires no heat, solvent, or other preparation for adhesion to a smooth, clean surface.

The sheeting must have sufficient adherence to form a durable bond to the aluminum substrate so as to remain firmly attached during the license plate manufacturing process and for a minimum service life of Five (5) years from the date of issuance of the plate by the Commonwealth's Department of Transportation, Department of Conservation and Natural Resources or their designated agent to a vehicle registrant.

After application, the sheeting must tightly adhere to the application surface and show no discoloration, cracking, crazing, blistering or dimensional change.

IMPACT RESISTANCE:

In accordance with Sections 6.10 and 7.11 of ASTM D 4956

FLEXIBILITY:

In accordance with Sections 6.7 and 7.9 of ASTM D 4956

SHEETING FILM:

Flexibility – Embossing

The sheeting must, when correctly applied to treated aluminum substrate, conform to the maximum depth tolerances of 0.093" for embossing and/or debossing dyes used by the Bureau of Correctional Industries.

SHRINKAGE:

Testing protocol in accordance with Section 7.8 of ASTM D 4956. Acceptance of material determined in accordance with Section 6.6 of ASTM D 4956.

FLEXIBILITY:

Testing protocol in accordance with Section 7.9 of ASTM D 4956. Acceptance of material determined in accordance with Section 6.7 of ASTM D 4956.

RETRO-REFLECTIVE CHARACTERISTICS:

The coefficient of retro-reflection will be measured on a white portion of the bid sample finished license plates and must have the minimum values at 0.2° observation angle.

<u>Color</u>	<u>Entrance Angle</u>	
	-4°	30°
White	70	30
Black	3	1
Straw	50	25

After Five (5) years of accelerated weathering as per Section 8.6 of ASTM D 4956, or Five (5) years of actual use, license plates shall exhibit a 50% or less decrease in these values.

DAYTIME / NIGHTTIME COLOR:

To assist in positive daytime/nighttime identification of license plates, the color of the reflective background of the sheeting, including any pre-printed design, must be similar in daylight and by illumination at night.

SAMPLES:

In Accordance with the sample clause, **II.2 II-IFB-013.1a**, samples are to be provided as follows:

LABORATORY TEST SAMPLES:

Upon notification by the Department of General Services to furnish the material, bidder must, within ten (10) business days, submit enough reflective sheeting and supplies to produce 100 license plates. The material must be submitted to SCI-Fayette, Bureau of Correctional Industries, Attn: Correctional Industries Manager 2, 50 Overlook Drive, LaBelle, PA 15450-1050. This sheeting must be representative of the material to be furnished if award is made to the bidder.

The Bureau of Correctional Industries will utilize the Materials and Testing Laboratory of the Commonwealth's Department of Transportation as the site for testing of the reflective sheeting provided by the bidder. The tests will evaluate the sheeting durability and photometric performance as specified in this Invitation for Bids.

RESISTANCE of RETRO-REFLECTIVE SHEETING to CONDITIONS OF HEAT AND COLD:

The retro-reflective sheeting must be resistant to heat and cold. Resistance of retro-reflective sheeting to heat and cold shall be determined as follows:

RESISTANCE TO HEAT:

A sample specimen of 4 inches x 6 inches (7.6 cm x 15.2 cm) shall be used for this test. The 6-inch dimension will be comprised of the same blue, white, yellow pattern as the final sheeting. Three samples shall be tested. Each sample specimen shall be exposed in an oven at 130 degrees F (+ / - 5 degrees F) for 24 hours, be removed and evaluated as follows: The sample specimen shall show no evidence of cracking, peeling, chipping, or delamination.

RESISTANCE TO COLD:

A sample specimen of 4 inches x 6 inches (7.6 cm x 15.2 cm) shall be used for this test. The 6-inch dimension will be comprised of the same blue, white, yellow pattern as the final sheeting. Three samples shall be tested. Each sample specimen shall be exposed to an air temperature of -30 degrees F (+ / - 5 degrees F) for 72 hours, be removed and evaluated as follows: The sample specimen shall show no evidence of cracking, peeling, chipping, or delamination.

CLEAR COATING and SHEETING DURABILITY:

The reflective sheeting shall be furnished with a protective clear coating. After curing, the clear coat must have enough hardness to resist surface scratching when probed with a "B" grade drafting pencil having the lead trimmed to a cylindrical shape. The clear-coating must not become brittle, flaky, or discolored, nor acquire a powdery surface within a period of Five (5) years from the date of issuance of the plate by the Commonwealth's Department of Transportation, DCNR or their designated agent to a vehicle registrant. The clear coating must be of such a quality as to permit the stacking of five (5) stickers on the license plate. The reflective sheeting, including the pre-printed designs and logos, overlamine and the opaque roller coated ink on the embossed areas must be compatible and must have a minimum service life of Five (5) years from the date of issuance of the plate by the Commonwealth's Department of Transportation, DCNR or their designated agent to a vehicle registrant.

PRE-PRODUCTION SAMPLES (For PennDOT):

No Pre-production samples are to be provided with the electronic bid submission. Pre-Production samples are only to be provided upon notice by the Department of General Services. Upon notice by the DGS, bidder has ten (10) business days to provide samples.

The contractor will be required to provide materials for twenty-four (24) pre-production samples to the Manager of the Output Control Section of the Pennsylvania Department of Transportation, Riverfront Office Center, 1st Floor, Harrisburg, PA 17104.

The materials used in the production of these samples must be the same type as used in the production of all ensuing order quantities and must be produced in the same manner. The submission of these samples is to ensure that the design of the sheeting material provides a true and accurate representation of the License Plate artwork provided to the bidders. Full production of the sheeting material must not begin until the contractor receives a written Notice to Proceed from the **Manager of Output Control**.

TECHNICAL SERVICE:

The reflective sheeting contractor must, at no additional cost to the Bureau of Correctional Industries, provide the license plate manufacturing plant with competent technical service until the Bureau of Correctional Industries is able to manufacture quality license plates that meet the requirements of the Commonwealth. The bidder must **provide with its bid** submission a list of those individuals who will be

assigned to provide technical service and information, which shows that these individuals are qualified to provide services, such as certification, experience, or educational background.

The technical service must be provided during the plant's regularly scheduled working hours. The cost of the technical service, including any and all incidental costs and any transportation and per diem costs, must be included in the bid price. To ensure the continued quality of the license plate manufacturing, the contractor, at no additional cost to the Bureau of Correctional Industries, must have a technician visit the manufacturing plant at a minimum of one (1) day in every ninety-day period. The contractor, at no additional cost to the Bureau of Correctional Industries, must have a technician available who can respond on-site to assist with any problem that may arise with the sheeting material within forty-eight (48) hours from notification.

QUALITY CONFORMANCE:

Failure of the reflective sheeting to meet any requirement specified herein may, at the discretion of the Bureau of Correctional Industries, be cause for refusal to accept further shipment of materials until evidence has been provided by the manufacturer that corrective action has been taken to eliminate deficiencies.

The Bureau of Correctional Industries may return or refuse to accept any material with obvious defects or that fails to meet any requirements contained in this Invitation for Bids. If payment for such defective material has already been made, the contractor must reimburse the Bureau of Correctional Industries the total amount paid.

MINOR DESIGN CHANGES:

The Commonwealth reserves the right to make minor design changes during the term of this contract and any renewals thereafter. These changes will be made with no additional cost to the Commonwealth. These changes will not affect the size of the sheeting, the number of colors or the type of materials.

WARRANTY TERMS AND CONDITIONS:

The contractor must fully warrant that the license plate reflective sheeting, overlamine and roller coating material provided are compatible with and designated to meet the durability and performance requirements specified herein over a minimum service life of Five (5) years from the date of issuance of the plate by the Commonwealth's Department of Transportation, DCNR or their designated agent to a vehicle registrant. The bidder **must submit** a certification on its company letterhead, signed by an authorized representative, stating that its product will meet these plate life standards. The bidder certification must be **accompanied** by data from an independent testing laboratory substantiating the information in the certification. Failure to provide this certification with the bid may result in the disqualification of the bidder at which time the bid will be deemed non-responsive to this Invitation for Bid.

The warranty provided is the sole responsibility of the contractor. The warranty provided must be applicable to a plate manufacturing process that utilizes an aluminum substrate.

HAZARDOUS WASTE REMOVAL:

The contractor must, at no cost to the Bureau of Correctional Industries, be responsible to properly treat and/or dispose all hazardous waste products generated at the production site, utilizing a permitted facility, in accordance with current State and Federal regulations. These products shall include, but not be limited to inks, thinners and rags contaminated with inks and/or thinners.

PACKAGING AND SHIPPING:

To ensure easy access and proper inventory control and to prevent roll damage due to double stacking, the reflective sheeting must be shipped in bulk packages to prevent damage in transit. Production run sequence numbers must be affixed to the outside of each shipping package that corresponds to the materials contained therein. Each roll must be additionally designated by a core identifier stamped or affixed with a permanent label to the inside of each roll core. Sheeting must be shipped with no more than three (3) production lots per pallet. Mismatch of numbers on the box and inside the roll core may, at the discretion of the Bureau of Correctional Industries, be cause for rejection. A shipping or packaging list must be affixed to one box on a pallet identifying all production runs contained within the shipment.

DELIVERY:

All deliveries must be provided F.O.B. Destination to the Commonwealth's designated point of delivery as indicated on the purchase order. All deliveries must be made within thirty (30) days from the date of receipt of purchase order.

MINIMUM ORDER: \$1,000.00 Per Purchase order.

LIQUIDATED DAMAGES:

Any failure to meet the reflective sheeting specifications set forth herein during the Five (5) year period from the date of issuance of the plate by the Commonwealth's Department of Transportation, DCNR or their designated agent to a vehicle registrant shall result in liability on the part of the contractor for liquidated damages in the amount of **\$7.00** for each license plate deemed to be defective by the Bureau of Correctional Industries. This amount is intended to compensate the Bureau of Correctional Industries for the reflective sheeting, the aluminum substrate and costs of manufacturing and the Department of Transportation or DCNR for shipping and other administrative costs of reissuing a new license plate.

Failure to meet delivery requirements as specified shall be considered cause for interruption of the Commonwealth's License Plate Manufacturing program.

The Commonwealth and the awarded supplier, therefore, presume that in the event of any such delivery delay, the amount of damage which will be sustained from the delay will be \$500.00 per business day per purchase order. The Commonwealth and the awarded supplier further agree that in the event of any such delivery delay, the awarded supplier shall pay such amount as liquidated damages not as a penalty.

The Commonwealth has the following option for deducting amounts due to the Commonwealth as liquidated damages:

- May deduct such from any money payable to the awarded supplier or
- May bill the awarded supplier as a separate item.

It is the responsibility of the Department of General Services to investigate instances of late or incomplete deliveries by gathering information from the using agency and the contractor. The Department will determine whether liquidated damages are an appropriate remedy in each instance. The Commonwealth shall notify the awarded supplier in writing of any claims for liquidated damages pursuant to this paragraph before the date the Commonwealth deducts such sums from the money payable to the awarded supplier.

ACCOUNTABILITY:

The manufacturer is accountable for all sheeting from the place of manufacture to the point of delivery. All over-run materials remaining in the sheeting manufacturer's possession after discontinuation of any design or the contract's cancellation, must be destroyed and used for no other purpose. Engraved printing

cylinders used to manufacture pre-printed sheeting must be supplied and remain in the possession of the sheeting manufacturer until such time as the cylinders are destroyed. The contractor must provide adequate security measures and supervision to protect sheeting from unauthorized use.

ADDITION OF LINE ITEMS:

Additional line items that are reasonably construed to be within the scope of this procurement may be added to the contract at the request of the using agency. In the event that DGS determines that the additional line item should be added, DGS will contact all suppliers who have been awarded a contract as a result of this procurement and request pricing of the new item. Award of the new item shall be based upon the lowest price received from the responding suppliers.

E-INVOICING: The PA Office of the Budget has initiated an E-Invoicing program that enables vendors to submit invoices via email. Submitting invoices via email enables vendors to save printing and postage costs, paper supplies, and mailing time needed to transmit paper invoices. The program's guidelines are available on the E-Invoicing website, located at <http://www.budget.pa.gov/Services/ForVendors/Pages/default.aspx>

POST AWARD ADMINISTRATION: The Suppliers performance shall be monitored and evaluated in accordance with the requirements outlined in the Contract. At a minimum, the Suppliers' performance shall be evaluated on an annual basis. Suppliers may be required to attend Contract Performance Review meetings. These meetings will be for the purpose of providing Supplier performance reviews, discussion of issues either party may have concerning the Contract or to evaluate the overall progress of the Contract. The meetings will be held quarterly, semi-annually or annually at the discretion of the Department of General Services, or upon special request of the using agencies.

INQUIRIES: Direct all inquiries concerning this solicitation via e-mail with the subject heading of "License Plate Sheeting Bid 6100049544" to the following:

Lilly Peek
Department of General Services
Bureau of Procurement
555 Walnut St, 6th Floor
Harrisburg PA 17101
Telephone: (717) 346-3846
Fax: 717-346-3820
E-mail: kpeek@pa.gov