

>EZDOR

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

RSHEET10

PAGE 1

ADDRESS CO	PRESPONDE	MCE TO AT	TENTIONIOS
115511644	HALL CHARL	- 10- 10-11	

JO ANN ADKINS 304-558-8802

ØН—Р ТО

ALL STATE AGENCIES
AND POLITICAL SUBDIVISIONS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRI	NTED	TE	RMS OF SA	LE	SHIF	VIA.	F.O.B.		FREIGHT TERMS
07/29	/2010		,	1	and the second property of the second			Annana An	
BID OPENING DATE	Ξ: (08/26/	2010		· · · · · · · · · · · · · · · · · · ·	BID	OPENING TIME	01	:30PM
LINE	QUAN	тітү	UOP	CAT. NO	ITEM N	UMBER	UNITPRICE		AMOUNT
0001		1	EA.		550-44				
	REFLECT		HEETI	NG		•			
			REQ	UEST	FOR QUOT	ATION	•		
							BIDS FOR A		
							R ALL WEST		
	VIRGINI	A STA	TE AG	ENCIE	S AND PO	LITICAL	SUBDIVISIONS		
	AND FIL		VE SH	EEIIN	G, ASSOC	IATED TA	PES, INKS		
	INQUIRI	ES							
	WRITTEN	I QUES	TIONS	SHAL	L BE ACC	EPTED TH	ROUGH CLOSE OF		
	BUSINES	S ON	THRUS	DAY,	AUGUST 1	2, 2010.	QUESTIONS		
	MAY BE	SENT	VIA U	SPS,	FAX, COU	RIER OR	EMAIL.		
							AN UNFAIR		•
							LL BE ANSWERED		
	ADDRESS				E-MAIL Q	NESITONS	ARE PREFERRED	•	
	JO ANN	ADKIN	s			.*			
	DEPARTM			INIST	RATION				
	PURCHAS								
	2019 WA				, EAST				
	CHARLES				·			ĺ	•
	FAX: 3 EMAIL:	04-55			cou				
	ENAIL:	JU.A.	ADKIN	SOMA.	60 V				
					•			1	
	ATTACHM	ENTS:		and the second					
				egg bev	/ERSE SIDE FOR	TEDAKE AND SO	IDITIONE		
SIGNATURE		<u> </u>		OLD DE!	LINDE DIVE FUR	TELEPHONE		ATE	
TIFLE		Tee	INI						
11116		FE	IN				ADDRESS CHAN	iges [.]	TO BE NOTED ABOVE

GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.
- 3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
- 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
- 5. Payment may only be made after the delivery and acceptance of goods or services.
- 6. Interest may be paid for late payment in accordance with the West Virginia Code.
- 7. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
- 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 12. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
- 13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 14. CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.
- 15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
- 16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form,
- 2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as EQUAL to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- **4.** All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
- 5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



MODZEA

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

RSHEET10

ADDRESS CORRESPOND	CARCETTO ATTENTION OF
しょうしょう しんしゅうしんいん	CINCE TO ATTICINATION OF A

JO ANN ADKINS 304-558-8802

T	

ALL STATE AGENCIES AND POLITICAL SUBDIVISIONS VARIOUS LOCALES AS INDICATED BY ORDER

DATE PRIN	ITED T	ERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
07/29/	/2010	<u> </u>			
BID OPENING DATE	08/26	3/2010	BID	OPENING TIME 01	:30PM
LINE	QUANTITY	UOP CAT.	ITEM NUMBER	UNIT PRICE	AMOUNT
	RSHEETIN SE	PECTETCATION	S DATED 07/2010	(36 PAGES)	
		SES (18 PAG		(30 TAGES)	
	AFFIDAVIT				
·	RESIDENT VE	NDOR PREFER	ENCE		
	EXHIBIT 3			·	
	LIFE OF CON	ITDACT. TU	TO CONTRACT RECO	MES EFFECTIVE ON	
			DS FOR A PERIOD	1	
	YEAR OR UNT	1 1	ASONABLE TIME" T		·
		1 1	NEW CONTRACT OR		,
		1 1	E "REASONABLE TI		
		TWELVE (12)		THIS "REASONABLE	
		1 1	ERMINATE THIS CO	1	
	WRITTEN NOT	I I	DIRECTOR OF PUR	CHASING 30 DAYS	
	WKIIIEN NO	102.			
	UNLESS SPEC	IFIC PROVIS	IONS ARE STIPULA	TED ELSEWHERE	
	IN THIS CON	ITRACT DOCUM	ENT, THE TERMS,	CONDITIONS AND	
		HEREIN ARE	FIRM FOR THE LI	FE OF THE	
	CONTRACT.			,	
	DENEWALA TH	ITS CONTRACT	MAY BE RENEWED	UDON THE MUTUAL	
	1		SPENDING UNIT A		
			TOR OF PURCHASIN		
				CH RENEWAL SHALL	
			THE TERMS AND CO		
	1	l L	SHALL BE LIMITED	TO TWO (2) ONE	
	(1) YEAR PE	RIODS.		4	
	CANCELLATIO	M. TUE DIDE	CTOR OF PURCHASI	NC DESERVES THE	
			ONTRACT IMMEDIAT		
		1 I		S AND/OR SERVICES	
		1 1	ERIOR QUALITY OR		·
	TO THE SPEC	FICATIONS	OF THE BID AND C	ONTRACT HEREIN.	
		SEFRE	 VERSE SIDE FOR TERMS AND COI	 NDITIONS	
SIGNATURE			TELEPHONE	DATE	
TITLE		FEIN		ADDRESS CHANCES	TO BE NOTED ABOVE
				ADDRESS CHANGES	TO BE NOTED ABOVE



NUCCE

RFO COPY

TYPE NAME/ADDRESS HERE

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Request for Quotation

REQ NUMBER

PAGE

ADDRESS CORRESPONDENCE TO ATTENTION OF:

JO ANN ADKINS 304-558-8802

%H-P T0

ALL STATE AGENCIES
AND POLITICAL SUBDIVISIONS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED TERMS OF SALE SHIP VIA FOB FREIGHT TERMS 07/29/2010 BID OPENING DATE: 08/26/2010 BID OPENING TIME 01:30PM CAT. LINE QUANTITY UOP ITEM NUMBER UNITPRICE AMOUNT OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANS-PORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.) QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED ITHAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF THE CONTRACT, WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN. ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT. BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THIS CONTRACT IS AUTOMATI-CALLY NULL AND VOID, AND IS TERMINATED WITHOUT FURTHER ORDER. THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM. SEE REVERSE SIDE FOR TERMS AND CONDITIONS SIGNATURE DATE TITLE ADDRESS CHANGES TO BE NOTED ABOVE



VENDOR

RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

RSHEET10

़		P	40	E	ĕ	Š
-				-	•	-

ADDRESS CORRESPONDENCE TO ATTENTION OF

JO ANN ADKINS 304-558-8802

	•	
	- 1	

ALL STATE AGENCIES
AND POLITICAL SUBDIVISIONS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRI	VTED	TEF	RMS OF SA	E	SI	HIP VIA		0.8		FREIGHT TERMS
07/29	/2010									i
BID OPENING DATE	;	08/26/	2010			BID	OPENING	TIME	01	:30PM
LINE	QUA	NTITY	UOP	CAT. NO:	ITEM	INUMBER	UN	IT PRICE		AMOUNT
	REV. 0	14/11/2	001		-					
	EXHIBI	T 10						•	:	
					REQ	UISITION	NO.:	• • • • • •	••	
	ADDEND	UM ACK	NOWLE	DGEME	NT					
	ADDEND	UM(S)	AND H	AVE M	ADE THE	OF THE FO NECESSAR ICATION,	Y REVIS			
	ADDEND	UM NO.	's:							
	NO. 1	• • • • • •								
	NO. 2	• • • • • •								
	NO. 3	• • • • •	• •							
	NO. 4	• • • • •								
•	NO. 5		• •			-				
						CONFIRM T			THE	
·	REPRES	ENTATI	ON MA	DE OR	ASSUME	D THAT AN D TO BE M	ADE DUR	ING ANY		
	AND AN	Y STAT	E PER	SONNE	L IS NO	VENDOR'S T BINDING AND ADDE	. ONLY	THE	S	· ·
	SPECIF	ICATIO	NS BY	AN O	FFICIAL	ADDENDUM	IS BIN	DING.		
				ope of	VERSE SING EA	OR TERMS AND CO	NDITIONS	000000000000000000000000000000000000000	2002	
SIGNATURE		00.000000000000000000000000000000000000		V-116.	······································	TELEPHONE	(HWI HWING	lo	ATE	
7174 F		1==								
TITLE		FE	EIN				AD	DRESS CHAN	IGES 1	TO BE NOTED ABOVE



ADDOR

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130 Charleston, WV 25305-0130

Request for Quotation

SH-P

Ţ

···P/	G		
		5	

ADDRESS CORRESPONDENCE TO ATTENTION OF

JO ANN ADKINS 304-558-8802

 COPY NAME/ADDRESS	HERE

ALL STATE AGENCIES AND POLITICAL SUBDIVISIONS VARIOUS LOCALES AS INDICATED BY ORDER

DATE PRINT	ΓED	TER	MS OF SAL	E	SHIP	VIA	F.	O.B	FREIGHT TERMS
07/29/	2010		•						
BID OPENING DATE:		08/26/	2010		BID C		OPENING	TIME 07	L:30PM
LINE		NTITY	UOP	CAT	ITEM:NU			TPRICE	
FINE	QUA:	V. 11 . 1	007	NO:	HEWING	NIDEN	UNI	I PRICE	AMOUNT
						SI	GNATURE		
			-		•••	CO	MPANY	• • • • • • • • •	
					• • • •	DA		• • • • • • • • •	
							-		
	NOTE: WITH T			UM AC	KNOWLEDGE	MENT SH	OULD BE	SUBMITTEL)
	REV. O	9/21/2	009						
	то сом	TACT Y	OU RE	GARDI	NG YOUR I	BID:			
·	CONTAC	T PERS	ON (P	LEASE	PRINT CL	EARLY):		· 	
	<u></u>				, 			·	
	*****	THIS	IS T	HE EN	D OF RFQ	RSHEE	T10 ***	*** TOTAL:	
						:	·		

BICNATURE				SEE RE	/ERSE SIDE FOR T	*,	NDITIONS	I	
SIGNATURE						TELEPHONE		DATE	
TITLE		FE	IN			<u> </u>	ADD	DRESS CHANGES	TO BE NOTED ABOVE
14411	- L D - O D	0.10.110.5		11.10					

SCOPE OF CONTRACT

The purpose of this Contract shall be to provide retroreflective sign sheeting, and associated tapes, inks, and films to various state agencies.

SPECIFICATIONS-GENERAL

Sheetings, inks, and films to be considered for award as part of this Contract must, as a minimum, be included on the Division's current Approved Products listing (APL) for Retroreflective Sign Sheetings as of the advertisement date of this Contract, the requirements of which are as follows:

- Completion of three (3) years of outdoor weathering testing in the AASHTO NTPEP Outdoor Reflective Sheeting Performance Testing Program, with the exception Type ASTM-I sheetings (two (2) year NTPEP testing required) and fluorescent-orange sheetings (one (1) year testing required).
- Evaluation and approval by the WVDOH, by means determined to be necessary in addition to the NTPEP program, to be in conformance with additional ASTM requirements, performance requirements, durability requirements, and manufacturing requirements specific to the state agencies utilizing material from this Contract.

Note, in addition to the above APL requirement, all materials must also have been previously evaluated and approved, prior to the advertising date of this Contract, by the WVDOH to be in conformance with applicable manufacturing equipment and manufacturing process requirements of the WVDOH, as needed. The APL includes materials approved for both WVDOH and Contractor use, as well as materials approved for Contractor use only (these materials are noted on the APL as not being approved for use for production within the WVDOH Sign Shop). Specific manufacturing requirements are typically not a critical consideration in regards to approving materials for use by Contractors. Therefore, the inclusion of a specific material on the WVDOH APL alone shall not be misinterpreted as constituting the sole requirement for a product to be awarded as part of this Contract.

To best serve the motorist, the attached retroreflective sheeting (hereinafter called sheeting) specifications require different "levels" of reflectivity and angularity. These include: ASTM Types I, III, IX, and XI sheetings, all of which are defined in this contract.

ASTM Types I, III, IX, and XI sheetings are required to be part of a "matched component system" that ensures the compatibility of inks and overlay films that are used with the sheeting and eliminates conflicts in regards to responsibility regarding performance warranties, as specified herein. The manufacturer's inks (for Types III, IX, and XI sheetings only), transparent EC films, and opaque EC Films must all be approved for use in manufacturing at the WVDOH Central Sign Shop in order for consideration to be given by the DOH for award of Bid Item Sections II, III, and V.

Note, specific requirements in regards to roll widths are included on the Bid Item listing. Where no specific requirements are shown, the manufacturer's standard width tolerances shall apply.

Technical Assistance: The successful bidder shall be able to provide technical assistance for the service of application equipment and the instruction and training of State personnel. This shall include, but not be limited to, calibration and trouble shooting of application equipment, training films, material application, screen-printing, packaging, storage, and the proper use and handling of inks.

Electrocut Films for use on Retroreflective Sheeting: Highly durable, transparent, acrylic, pressure sensitive colored film. Shall be as recommended by the sheeting manufacturer as part of the "matched component system". Shall in no way diminish warranties stated herein.

Transfer Tape for use with Electrocut Films: Transparent, low-tack, pressure sensitive, reusable tape used to transfer weeded legends and symbols in the manufacturing of highway signs. Shall be as recommended by the sheeting manufacturer.

Opaque electronic cuttable graphic films: Highly durable, opaque, cast vinyl, pressure sensitive colored film. Shall be as recommended by the sheeting manufacturer as part of the "matched component system". Shall in no way diminish warranties stated herein.

Certification submittal: Certifications will be required for all sheeting ordered as part of this Contract. Certifications are to be received within ten (10) calendar days after receipt of material. Any change in formulation of the material must be submitted in writing to the WVDOH. The WVDOH will then determine if these changes will require retesting or additional testing of the material and if they comply with these specifications.

Delivery Schedule: All deliveries shall be provided F.O.B. to the State's designated point of delivery (Charleston, WV or 60 miles from Charleston's boundary). The first expected delivery of material shall be not later than thirty (30) days following official notification of contract award and initial order. All subsequent deliveries shall be F.O.B. destination within fifteen (15) days after receipt of order.

Liquidated Damages: Deliveries not completed in a timely manner may, at the purchasing agencies discretion, be subject to liquidated damages as set forth in section 108.7 of the current edition of "Standard Specifications Roads and Bridges". See table 108.7.1. Daily charges shall be based on the total monetary value of the order. Daily charges shall not be lessened, delayed, or suspended based on partial receipt of the order.

TYPE ASTM-I REFLECTIVE SHEETING - SPECIFICATIONS

General: The reflective sheeting shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the sheeting manufacturer without appreciable stretching, tearing, or other damage. The sheeting shall permit cutting and color processing with compatible transparent and opaque process inks at temperatures of 60 to 100 F and relative humidity at 20 to 80 percent. The sheeting shall be heat resistant and permit force curing without staining of applied or unapplied sheeting at temperatures as recommended by the manufacturer.

Construction: The reflective sheeting shall consist of optical lens elements incorporated within a transparent weatherproof film having a smooth, flat outer surface.

Coefficient of Retroreflection: The reflective sheeting shall have minimum reflective intensity values 0.2 degrees and 0.5 degrees, observation angle, as shown in I below, expressed as candle power per foot candle per square foot (candelas per lux per square meter) of material.

	TABLE I													
Observation Angle	Entrance Angle	White	Yellow	Green	Red	Blue	Brown							
0.2	-4	70	50	9	14	4	1							
0.2	+30	30	22	3.5	6	1.7	0.3							
0.5	-4	30	25	4.5	7.5	2	0.3							
0.5	+30	15	13	2.2	3	0.8	0.2							
Measurement D4956.	ts shall be r	nade pe	r ASTM											

Daytime Color: The daytime color chromaticity coordinates for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table II below when tested in accordance with ASTM D4956.

			TAB	LEII	-			
O allam	1	1 23		3	4	ļ		
Color	Х	У	Х	У	X	<u>y</u>	Х	У
White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472
Green	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771
Red	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346
Blue	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216
Brown	0.430	0.340	0.610	0.390	0.550	0.450	0.430	0.390
Fluorescent- Yellow- Green	0.387	0.610	0.369	0.546	0.428	0.496	0.460	0.540
Fluorescent- Yellow	0.479	0.520	0.446	0.483	0.512	0.421	0.557	0.442
Fluorescent- Orange	0.583	0.416	0.535	0.400	0.595	0.351	0.645	0.355

The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors.

The corresponding values above shall also apply to screen printed or transparent overlay film areas on white sheeting.

Daytime Luminance Factor: The daytime luminance factor Y (%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table III below when tested in accordance with ASTM D4956.

	AT	BLE III		
		etalized terial	<u>Metalize</u>	d Material
Color	Min.	Max.	Min.	<u>Max.</u>
White	27	-	15	-
Yellow	15	45	12	30
Green	3	12	2.5	11
Red	2.5	15	2.5	11
Blue	1	10	1	10
Brown	1	9	1	9
DIOWII	,	Ū	•	

Adhesive: The adhesive shall be a Class 1 adhesive, as defined by ASTM D4956. The adhesive backing shall be pressure sensitive, require no heat, solvent, or other preparation for adhesion to smooth, clean surfaces. Additional adhesive coats on either the reflective sheeting or application surface shall not be necessary. When tested in accordance with ASTM D4956, the adhesive backing of the sheeting shall produce a bond that will support a 13/4-lb (0.79-kg) weight for 5 min, without the bond peeling for a distance of more than 2 in.

Shrinkage: The sheeting shall not shrink in any dimension more than 1/32 in. in 10 min or more than 1/8 in. in 24 h when tested in accordance with ASTM D4956.

Flexibility: The sheeting shall be sufficiently flexible to show no cracking when tested in accordance with ASTM D4956.

Liner Removal: The liner shall be easily removed without soaking in water or other solutions, and shall not break, tear, or remove adhesive from the sheeting. The liner shall be easily removed after accelerated storage as described in ASTM D4956.

Impact Resistance: The sheeting shall show no cracking or delaminating outside of the actual area of impact when subjected to the impact test in accordance with ASTM D4956.

Nighttime Color: The nighttime color chromaticity coordinates for CIE standard illuminant A, 0.33 degree observation angle, +5 degree entrance angle, source and receiver apertures not to exceed 10 minutes of arc, and the 1931 CIE 2° standard observer shall be in accordance with Table IV below when tested in accordance with ASTM D4956

		<u> </u>	TAB	LE IV		. ==		
0.1		1	;	2	3	3	4	ļ
Color -	х	у	Х	У	х	у	Х	У
White				No Requi	rement			-
Yellow	0.650	0.348	0.620	0.348	0.712	0.255	0.735	0.265
Green	0.033	0.370	0.180	0.370	0.230	0.240	0.091	0.133
Red	0.513	0.487	0.500	0.470	0.545	0.425	0.572	0.425
Blue	0.595	0.405	0.540	0.405	0.570	0.365	0.643	0.355
Brown	0.007	0.570	0.200	0.500	0.322	0.590	0.193	0.782
Fluorescent- Yellow- Green	0.625	0.375	0.589	0.376	0.636	0.330	0.669	0.331
Fluorescent- Yellow	0.554	0.445	0.526	0.437	0.569	0.394	0.610	0.390
Fluorescent- Orange	0.480	0.520	0.473	0.490	0.523	0.440	0.550	0.449

The saturation limit shall be considered to extend to the border of the CIE chromaticity locus for spectral colors.

The corresponding values above shall also apply to screen printed or EC film transparent colored areas on white sheeting

Durability: The sheeting shall be weather resistant and show no appreciable cracking, scaling, pitting, blistering, edge lifting, or curling, or more than 1/32-in. shrinkage or expansion when subjected to accelerated outdoor weathering in accordance with ASTM D4956.

The material shall maintain a minimum retroreflectivity level of 50% of the values shown in Table I when tested at 0.2° observation and -4° and +30° entrance angles for a period of seven (7) years after field installation.

Type ASTM-I Sheeting Approval and Matched Component Requirements: In addition to the manufacturer's sheeting material to be supplied, each of the manufacturer recommended matched component products listed within Bid Item Section II shall be approved by the WVDOH, as indicated on the WVDOH APL, in order for the particular manufacturer's material to be considered for award under Bid Item Section II.

GENERAL CHARACTERISTICS AND PACKAGING: The reflective sheeting as supplied shall be of good appearance free from ragged edges, cracks, and extraneous materials, and shall be furnished in both rolls and sheets as may be specified. The average number of splices shall not be more than three per 50 yards of material with a maximum of four splices per 50 yard length and splices shall be suitable for continuous application as supplied.

Rolls shall be packed snugly in corrugated fiberboard boxes in such a manner that no damage or defacement may occur to the reflective sheeting during shipment or storage.

Cut sheets shall be packaged flat between pressed composition board or corrugated pads of the same dimension as the sheets to prevent damage or defacement during shipment or storage.

Stored under normal conditions, the reflective sheeting shall be suitable for use for a period of at least one year.

TYPE ASTM- III REFLECTIVE SHEETING - SPECIFICATIONS

General: The reflective sheeting shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the sheeting manufacturer without appreciable stretching, tearing, or other damage. The sheeting shall permit cutting and color processing with compatible transparent and opaque process inks at temperatures of 60 to 100 F and relative humidity at 20 to 80 percent. The sheeting shall be heat resistant and permit force curing without staining of applied or unapplied sheeting at temperatures as recommended by the manufacturer.

Construction: The sheeting shall be a high-intensity encapsulated glass-bead retroreflective material or unmetallized microprismatic retroreflective element material with a transparent, weatherproof topcoat having a smooth outer surface. The sheeting shall have a precoated adhesive backing protected by a removable liner.

Coefficient of Retroreflection: The sheeting shall have minimum reflective intensity values 0.2 degrees and 0.5 degrees, observation angle, as shown in Table V below, expressed as candle power per foot candle per square foot (candelas per lux per square meter) of material.

Table V							
Observation Angle	Entrance Angle	White	Yellow	Green	Red	Blue	Brown
0.2	-4	250	170	45	45	20	12
0.2	+30	150	100	25	25	11	8.5
0.5	-4	95	62	15	15	7.5	5
0.5	+30	65	45	10	10	5	3.5

measurements shall be made per ASTM D4956. The values of 0° and 90° rotation are averaged to determine conformance.

For screen printed transparent colored areas on white sheeting, the coefficient of

retroreflection shall not be less than as follows:

Observation Angle	Entrance Angle	Yellow	Green	Red	Blue	Brown
0.2	-4	119	32	32	14	8.4
0.2	+30	70	18	18	7.5	6.0
0.5	-4	43	11	11	5.0	3.5
0.5	+30	32	7.0	7.0	3.5	2.5

measurements shall be made per ASTM D4956. The values of 0° and 90° rotation are averaged to determine conformance.

For E.C. film applied transparent colored areas on white sheeting, the coefficient of retroreflection shall fall within the following range expressed as a % value of the coefficient of retroreflection of the base (white) retroreflective material:

Transparent	Min.	Max.
Color		
Green	13%	20%
Blue	6.5%	20%
Red	14%	24%
Yellow	60%	80%
Brown	5%	NA

measurements shall be made per ASTM D4956. measurments shall be made at 0.2° observation angle, -4° entrance angle, and 0° rotation.

Daytime Color: The daytime color chromaticity coordinates for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table II when tested in accordance with ASTM D4956.

Daytime Luminance Factor: The daytime luminance factor Y (%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table III when tested in accordance with ASTM D4956.

Adhesive: The adhesive shall be a Class 1 adhesive, as defined by ASTM D4956. The adhesive backing shall be pressure sensitive, require no heat, solvent, or other preparation for adhesion to smooth, clean surfaces. Additional adhesive coats on either the reflective sheeting or application surface shall not be necessary. When tested in accordance with ASTM D4956, the adhesive backing of the sheeting shall produce a bond that will support a 1-3/4 lb weight for 5 min, without the bond peeling for a distance of more than 2 in.

Shrinkage: The sheeting shall not shrink in any dimension more than 1/32 in. in 10 min or more than 1/8 in. in 24 h when tested in accordance with ASTM D4956.

Flexibility: The sheeting shall be sufficiently flexible to show no cracking when tested in accordance with ASTM D4956.

Liner Removal: The liner shall be easily removed without soaking in water or other solutions, and shall not break, tear, or remove adhesive from the sheeting. The liner shall be easily removed after accelerated storage as described in ASTM D4956.

Impact Resistance: The sheeting shall show no cracking or delaminating outside of the actual area of impact when subjected to the impact test in accordance with ASTM D4956.

Nighttime Color: The nighttime color chromaticity coordinates for CIE standard illuminant A, 0.33 degree observation angle, +5 degree entrance angle, source and receiver apertures not to exceed 10 minutes of arc, and the 1931 CIE 2° standard observer shall be in accordance with Table IV when tested in accordance with ASTM D4956.

Durability: The sheeting shall be weather resistant and show no appreciable cracking, scaling, pitting, blistering, edge lifting, or curling, or more than 1/32-in. shrinkage or expansion when tested in accordance with ASTM D4956.

The material shall maintain the levels of retroreflectivity indicated in Table VI below for a period of twelve (12) years after installation.

TABLE VI

Age: 0 years through 7

years:

Observation Angle	Entrance Angle	White	Yellow	Green	Red	Blue	Brown
0.2	-4	200	136	36	36	16	9.5
0.2	+30	140	108	24	24	8.5	6.5
0.5	-4	76	49	12	12	6	4
0.5	+30	56	48	9.5	9.5	4	2.5

Measurements shall be made per ASTM D4956 after sign cleaning. The values of 0° and 90° rotation are averaged to determine conformance. For screen printed and transparent overlay film areas on white sheeting, the coefficients of retroreflection shall not be less than 70% of the values for the corresponding color in the above table.

Age: 7 years through 12

years:

Observation Angle	Entrance Angle	White	Yellow	Green	Red	Blue	Brown
0.2	-4	175	119	31	31	14	8
0.2	+30	122	94	21	21	7.5	5.5
0.5	-4	66	43	10	10	5	3.5
0.5	+30	49	42	8	8	3.5	2

Measurements shall be made per ASTM D4956 after sign cleaning. The values of 0° and 90° rotation are averaged to determine conformance. For screen printed and transparent overlay film areas on white sheeting, the coefficients of retroreflection shall not be less than 70% of the values for the corresponding color in the above table.

Type ASTM-III Sheeting Approval and Matched Component Requirements: In addition to the manufacturer's sheeting material to be supplied, each of the manufacturer recommended matched component products listed within Bid Item Section III, as well as the manufacturer recommended matched component opaque and transparent inks, shall be approved by the WVDOH, as indicated on the WVDOH APL, in order for the particular manufacturer's material to be considered for award under Bid Item Section III. Matched component approval shall not be required for consideration of award of Bid Item Section IV.

MANUFACTURER'S FIELD PERFORMANCE OBLIGATION: The reflective sheeting processed, applied to sign blank materials, and cleaned in accordance with manufacturer's recommendations, shall perform effectively for the number of years stated in Table VI. The retroreflective sheeting will be considered unsatisfactory if it has deteriorated due to natural causes to the extent that: (1) the sign is ineffective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions; or (2) the coefficient of retroflection is less than the minimum specified for that sheeting during that period listed in Table VI.

Where it can be shown that the performance requirements of sheeting supplied and used according to the manufacturer's recommendations have not been met, the manufacturer shall cover the sign costs as follows for sheeting shown to be unsatisfactory during:

- The First Seven Years: The sheeting manufacturer will cover the cost of restoring the sign panel to its original effectiveness at no cost to the agency for materials or labor.
- Years 8 thru 10: The sheeting manufacturer will replace the sheeting required to restore the sign panel to its original effectiveness.
- Years 11 thru 12: The sheeting manufacturer will replace fifty percent of the sheeting required to restore the sign panel to its original effectiveness.

PROCESS INKS: Manufacturer recommended matched component inks shall be provided at no additional cost based on the following:

- Transparent Inks: 1 Gal. per 1200 sq. ft of sheeting (colors will be specified on order), or
- Black Ink: 1 Gal. per 2400 sq. ft. of sheeting

Ink supplied will be either transparent or black as specified on order.

Ink supplied will be rounded up to the next whole gallon.

All inks shall include a UV inhibitor.

Failure of the manufacturer's recommended matched component inks to properly perform on the sheeting, whether supplied by the manufacturer or the WV Division of Highways, will constitute a failure of the sheeting and replacement will be made as outlined herein.

SLIP SHEETING: Slip sheeting compatible with the reflective sheeting and inks shall be provided in rolls equal to the amount and size of reflective sheeting ordered at no additional cost.

WASHERS: Nylon washers shall be provided at no additional cost at the rate of 1000 washers per 3500 SF of sheeting ordered. Washers shall measure 5/16" (I.D.) x 7/8" (O.D.) x 1/16" thick, and shall be manufactured from commercial grade nylon. Total quantity of washers supplied shall be determined by rounding the total square footage of sheeting ordered up or down to the nearest multiple of 3500. For inventory purposes, washers shall be supplied in individual packages of 1000 ea.

GENERAL CHARACTERISTICS AND PACKAGING: The reflective sheeting as supplied shall be free from ragged edges, cracks, and extraneous materials and shall be furnished in both rolls and sheets. The average number of splices shall not be more than three per 50 yard roll with a maximum of four per 50 yard of material and splices shall be suitable for continuous application as supplied.

Rolls shall be packaged in corrugated fiberboard boxes in such a manner that no damage or defacement may occur to the reflective sheeting during shipment or storage.

Cut sheets shall be packaged flat between pressed composition boards or corrugated pads of the same dimensions as the sheets and shall be so packed as to prevent damage or defacement during shipment or storage.

The reflective sheeting as supplied and stored under normal conditions shall be suitable for use for at least one year after purchase.

TYPE ASTM- IX REFLECTIVE SHEETING - SPECIFICATIONS

General: The reflective sheeting shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the sheeting manufacturer without appreciable stretching, tearing, or other damage. The sheeting shall permit cutting and color processing with compatible transparent and opaque process inks at temperatures of 60 to 100 F and relative humidity at 20 to 80 percent. The sheeting shall be heat resistant and permit force curing without staining of applied or unapplied sheeting at temperatures as recommended by the manufacturer.

Construction: The sheeting shall be a very-high-intensity unmetallized microprismatic retroreflective element material with a transparent, weatherproof topcoat having a smooth outer surface. The sheeting shall have a pre-coated adhesive backing protected by a removable liner.

Coefficient of Retroreflection: The sheeting shall have minimum reflective intensity values 0.2 degrees, 0.5 degrees, and 1.0 degrees observation angle, as shown in Table VII below, expressed as candle power per foot candle per square foot (candelas per lux per square meter) of material.

· · ·	TABLE VII							
Observation Angle	Entrance Angle	White	Green	Red	Blue	Fluorescent Yellow- Green	Fluorescent Yellow	Fluorescent Orange
0.2	-4	380	38	76	17	300	230	115
0.2	+30	215	22	43	10	170	130	65
0.5	4	240	24	48	11	190	145	72
0.5	+30	135	14	27	6	110	81	41
1.0	4	80	8	16	3.6	64	48	24
1.0	+30	45	4.5	9	2	36	27	14

measurements shall be made per ASTM D4956. The values of 0° and 90° rotation are averaged to determine conformance.

For screen printed transparent colored areas on white sheeting, the coefficient of retroreflection shall not be less than as follows:

Observation Angle	Entrance Angle	Green	Red	Blue
0.2	4	27	53	12
0.2	+30	15	30	7.0
0.5	-4	17	34	7.5
0.5	+30	10	19	4.0
1.0	-4	5.5	11	2.5
1.0	+30	3.0	6.0	1.0

measurements shall be made per ASTM D4956. The values of 0° and 90° rotation are averaged to determine conformance.

For E.C. film applied transparent colored areas on white sheeting, the coefficient of retroreflection shall fall within the following range expressed as a % value of the coefficient of retroreflection of the base (white) retroreflective material:

Transparent Color	Min.	Max.
Green	13%	20%
Blue	6.5%	20%
Red	14%	24%

measurements shall be made per ASTM D4956. measurments shall be made at 0.2° observation angle, -4° entrance angle, and 0° rotation.

Daytime Color: The daytime color chromaticity coordinates for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table II when tested in accordance with ASTM D4956.

Daytime Luminance Factor: The daytime luminance factor Y (%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table III for non-fluorescent colors when tested in accordance with ASTM D4956.

High Conspicuity and Fluorescence Luminance Factor: The high conspicuity luminance factor Y (%) and fluorescence luminance factor Yf (%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table VIII below for fluorescent colors when tested in accordance with ASTM D4956.

	TABI	_E VIII		
	Y	(%)	Yf (%)
Color	min	max	min	max
Fluorescent-Orange	25		20	
Fluorescent-Yellow	45		25	
Fluorescent-Yellow-Green	60		35	

Adhesive: The adhesive shall be a Class 1 adhesive, as defined by ASTM D4956. The adhesive backing shall be pressure sensitive, require no heat, solvent, or other preparation for adhesion to smooth, clean surfaces. Additional adhesive coats on either the reflective sheeting or application surface shall not be necessary. When tested in accordance with ASTM D4956, the adhesive backing of the sheeting shall produce a bond that will support a 1-3/4 lb weight for 5 min, without the bond peeling for a distance of more than 2 in.

Shrinkage: The sheeting shall not shrink in any dimension more than 1/32 in. in 10 min or more than 1/8 in. in 24 h when tested in accordance with ASTM D4956.

Flexibility: The sheeting shall be sufficiently flexible to show no cracking when tested in accordance with ASTM D4956.

Liner Removal: The liner shall be easily removed without soaking in water or other solutions, and shall not break, tear, or remove adhesive from the sheeting. The liner shall be easily removed after accelerated storage as described in ASTM D4956.

Impact Resistance: The sheeting shall show no cracking or delaminating outside of the actual area of impact when subjected to the impact test in accordance with ASTM D4956.

Heat Resistance (fluorescent yellow and fluorescent yellow-green): Apply sheeting to standard panel and condition. Measure coefficients of retroreflection for all test geometries. Expose panel in an air circulating oven at 160 +/- 5°F (71 +/- 3°C) for a period of 24 hours. Re-condition after exposure and re-measure at all test geometries. Requirement - Coefficients of retroreflection measured after exposure shall be between 85% and 115% of the values measured before exposure.

Heat Resistance (fluorescent orange): Apply sheeting to a standard panel and condition. Measure coefficient of retroreflection at 0.2° observation and -4° entrance angles. Expose panel in circulating oven at 160 +/- 5°F (71 +/- 3°C) for a period of 24 hours. Recondition after exposure and re-measure. Coefficient of retro reflection measured after exposure shall be between 80% and 120% of original tested value at 0.2° observation and -4° entrance angles

Durability: The sheeting shall be weather resistant and show no appreciable cracking, scaling, pitting, blistering, edge lifting, or curling, or more than 1/32-in. (0.8-mm) shrinkage or expansion when tested in accordance with ASTM D4956.

Non-fluorescent materials shall maintain the levels of retroreflectivity indicated in Table IX below for a period of twelve (12) years after installation.

Fluorescent yellow and fluorescent yellow green materials shall maintain the levels of retroreflectivity indicated in Table IX below for a period of ten (10) years after installation.

Fluorescent orange materials shall maintain the levels of retroreflectivity indicated in Table IX below for a period of three (3) years after initial use.

The sheeting daytime and nighttime color chromaticity coordinates for non-fluorescent sheetings shall be in accordance with Tables II and IV for a period of twelve (12) years after installation. The preceding color requirements shall apply to screen printed or transparent overlay film areas on white sheeting as well.

The sheeting daytime and nighttime color chromaticity coordinates for fluorescent sheetings, excluding fluorescent orange, shall be in accordance with Tables II and IV for a period of ten (10) years after installation.

The sheeting daytime and nighttime color chromaticity coordinates for fluorescent orange sheeting shall be in accordance with Tables II and IV for a period of three (3) years after initial use.

The sheeting daytime luminance factor Y(%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer for non-fluorescent material shall be in accordance with Table III for a period of twelve (12) years after installation.

The sheeting high conspicuity luminance factor Y(%) and fluorescent luminance factor Yf(%)for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table X below for a period of ten (10) years after installation for fluorescent-yellow and fluorescent-yellow-green material, and for a period of three (3) years after initial use for fluorescent-orange material.

TABLE IX

Non-Fluorescent colors: Age 0 years through 7 years:

Observation Angle	Entrance Angle	White	Green	Red	Blue
0.2	-4	304	30	61	14
0.2	+30	172	18	34	8.0
0.5	-4	192	19	38	8.5
0.5	+30	108	11	22	4.5
1.0	-4	64	6.0	13	2.5
1.0	+30	36	3.5	7.0	1.5

measurements shall be made per ASTM D4956 after sign cleaning. The values of 0° and 90° rotation are averaged to determine conformance. For screenprinted and E.C film applied transparent colored areas on white sheeting, the coefficients of retroreflection shall not be less than 70% of the values for the corresponding color in the above table.

Non-Fluorescent colors: Age 7 years through 12 years:

INDIT-1 tudiescent colors. Age 7 years through 12 years.								
Observation Angle	Entrance Angle	White	Green	Red	Blue			
0.2	-4	266	27	53	12			
0.2	+30	151	15	30	7.0			
0.5	-4	168	17	34	7.5			
0.5	+30	95	10	19	4.0			
1.0	-4	56	5.5	11	2.5			
1.0	+30	32	3.0	6.0	1.0			

measurements shall be made per ASTM D4956 after sign cleaning. The values of 0° and 90° rotation are averaged to determine conformance. For screenprinted and E.C film applied transparent colored areas on white sheeting, the coefficients of retroreflection shall not be less than 70% of the values for the corresponding color in the above table.

Fluorescent yellow and yellow-green colors: Age 0 years through 10 years:

Color	Observation	Ra
	Angle	
Fluorescent	0.2	165
Yellow	1	30
Fluorescent	0.2	225
Yellow-	4	45
Green	<u>'</u>	₩0

measurements shall be made at -4 entrance angle. measurements shall be made per ASTM D4956 after sign cleaning. The values of 0° and 90° rotation are averaged to determine conformance.

Fluorescent orange: Age 0 years through 3 years:

Color	Observation Angle	Ra	
Fluorescent Orange	0.2	125	

measurements shall be made at -4 entrance angle. measurements shall be made per ASTM D4956 after sign cleaning. The values of 0° and 90° rotation are averaged to determine conformance.

	TAE	BLE X		
	Y	(%)	Yf (%	6)
Color	min	max	min	max
Fluorescent-Orange	25		15	
Fluorescent-Yellow	45		20	
Fluorescent-Yellow-Green	60		20	

Type ASTM-IX Sheeting Approval and Matched Component Requirements: In addition to the manufacturer's sheeting material to be supplied, each of the manufacturer recommended matched component products listed within Bid Item Section V, as well as the manufacturer recommended matched component opaque and transparent inks, shall be approved by the WVDOH, as indicated on the WVDOH APL, in order for the particular manufacturer's material to be considered for award under Bid Item Section V. Matched component approval shall not be required for consideration of award of Bid Item Section VI.

MANUFACTURER'S FIELD PERFORMANCE OBLIGATION: The reflective sheeting processed, applied to sign blank materials, and cleaned in accordance with manufacturer's recommendations, shall perform effectively for the number of years as stated in this specification. The retroreflective sheeting will be considered unsatisfactory if it has deteriorated due to natural causes to the extent that: (1) the sign is ineffective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions; or (2) the coefficient of retroreflection during the specified warranty period is less than the minimum specified values as described herein; or (3) the Luminance Factor, High Conspicuity Luminance Factor, or Fluorescence Luminance Factor during the specified warranty period is less than the minimum specified values as described herein; or (4) the daytime color chromaticity coordinates for CIE standard illuminant D65 and the 1931 CIE 2° standard observer during the specified warranty period does not meet the requirements as described herein.

Where it can be shown that the performance of sheeting supplied and used according to the manufacture's recommendations have not been met, the manufacturer shall cover the sign costs as follows for sheeting shown to be unsatisfactory during:

- Years 0 thru 3 (fluorescent orange only): Material failing to meet requirements shall be replaced at a rate of 1 1/2 (replacement) to 1 (purchased).
- The First Seven Years (excludes fluorescent orange): The sheeting manufacturer will cover the cost of restoring the sign panel to its original effectiveness at no cost to the agency for materials or labor.
- Years 8 thru 10 (excludes fluorescent orange): The sheeting manufacturer will replace the sheeting required to restore the sign panel to its original effectiveness.
- Years 11 thru 12 (non-fluorescent only): The sheeting manufacturer will replace fifty percent of the sheeting required to restore the sign panel to its original effectiveness.

PROCESS INKS: Manufacturer recommended matched component inks shall be provided at no additional cost based on the following:

- Transparent Inks: 1 Gal. per 1200 sq. ft of sheeting (colors will be specified on order), or
- · Black Ink: 1 Gal. per 2400 sq. ft. of sheeting

Ink supplied will be either transparent or black as specified on order.

Ink supplied will be rounded up to the next whole gallon.

All inks shall include a UV inhibitor.

Failure of the manufacturer's recommended matched component inks, whether supplied by the manufacturer or the WV Division of Highways, to properly perform on the sheeting will constitute a failure of the sheeting and replacement will be made as outlined herein.

SLIP SHEETING: Slip sheeting compatible with the reflective sheeting and inks shall be provided in rolls equal to the amount and size of reflective sheeting ordered at no additional cost.

WASHERS: Nylon washers shall be provided at no additional cost at the rate of 1000 washers per 3500 SF of sheeting ordered. Washers shall measure 5/16" (I.D.) x 7/8" (O.D.) x 1/16" thick, and shall be manufactured from commercial grade nylon. Total quantity of washers supplied shall be determined by rounding the total square footage of sheeting ordered up or down to the nearest multiple of 3500. For inventory purposes, washers shall be supplied in individual packages of 1000 ea.

GENERAL CHARACTERISTICS AND PACKAGING: The reflective sheeting as supplied shall be free from ragged edges, cracks, and extraneous materials and shall be furnished in both rolls and sheets. The average number of splices shall not be more than three per 50 yard roll with a maximum of four per 50 yard of material and splices shall be suitable for continuous application as supplied.

Rolls shall be packaged in corrugated fiberboard boxes in such a manner that no damage or defacement may occur to the reflective sheeting during shipment or storage.

Cut sheets shall be packaged flat between pressed composition boards or corrugated pads of the same dimensions as the sheets and shall be so packed as to prevent damage or defacement during shipment or storage.

The reflective sheeting as supplied and stored under normal conditions shall be suitable for use for at least one year after purchase.

TYPE ASTM- XI REFLECTIVE SHEETING - SPECIFICATIONS

General: The reflective sheeting shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the sheeting manufacturer without appreciable stretching, tearing, or other damage. The sheeting shall permit cutting and color processing with compatible transparent and opaque process inks at temperatures of 60 to 100 F and relative humidity at 20 to 80 percent. The sheeting shall be heat resistant and permit force curing without staining of applied or unapplied sheeting at temperatures as recommended by the manufacturer.

Construction: The sheeting shall be a very-high-intensity unmetallized cube corner microprismatic retroreflective element material with a transparent, weatherproof topcoat having a smooth outer surface. The sheeting shall have a pre-coated adhesive backing protected by a removable liner.

Coefficient of Retroreflection: The sheeting shall have minimum reflective intensity values 0.2 degrees, 0.5 degrees, and 1.0 degrees observation angle, as shown in Table XI below, expressed as candle power per foot candle per square foot (candelas per lux per square meter) of material.

TABLE XI									
Observation Angle	Entrance Angle	White	Green	Red	Blue	Brown	Fluorescent Yellow- Green	Fluorescent Yellow	Fluorescen Orange
0.2	-4	580	58	87	26	17	460	350	175
0,2	+30	220	22	33	10	7	180	130	66
0.5	-4	420	42	63	19	13	340	250	125
0.5	+30	150	15	23	7	5	120	90	45
1,0	-4	120	12	18	5	4	96	72	36
1.0	+30	45	5	7	2	1	36	27	14

measurements shall be made per ASTM D4956. The values of 0° and 90° rotation are averaged to determine conformance.

For screen printed transparent colored areas on white sheeting, the coefficient of retroreflection shall not be less than

as iuliuws.					
Observation Angle	Entrance Angle	Green	Red	Blue	Brown
0.2	-4	41	61	18	12
0.2	+30	15	23	7	5
0.5	-4	29	44	13	9
0.5	+30	11	16	5	4
1.0	-4	8	13	4	3
1.0	+30	4	5	1	1

measurements shall be made per ASTM D4956. The values of 0° and 90° rotation are averaged to determine conformance.

For E.C. film applied transparent colored areas on white sheeting, the coefficient of retroreflection shall fall within the following range expressed as a % value of the coefficient of retroreflection of the base (white) retroreflective material:

Transparent	Min.	Max.
Color		
Green	13%	20%
Blue	6.5%	20%
Red	14%	24%
Brown	5%	NA

measurements shall be made per ASTM D4956. measurments shall be made at 0.2° observation angle, -4° entrance angle, and 0° rotation.

Daytime Color: The daytime color chromaticity coordinates for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table II when tested in accordance with ASTM D4956.

Daytime Luminance Factor: The daytime luminance factor Y (%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table III for non-fluorescent colors when tested in accordance with ASTM D4956.

High Conspicuity Luminance Factor: The high conspicuity luminance factor Y (%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer shall be in accordance with Table XII below for fluorescent colors when tested in accordance with ASTM D4956.

TABLE XII						
Y(%)						
Color	Min	Max				
Fluorescent-Orange	25	-				
Fluorescent-Yellow	45					
Fluorescent-Yellow-Green	60	-				

Adhesive: The adhesive shall be a Class 1 adhesive, as defined by ASTM D4956. The adhesive backing shall be pressure sensitive, require no heat, solvent, or other preparation for adhesion to smooth, clean surfaces. Additional adhesive coats on either the reflective sheeting or application surface shall not be necessary. When tested in accordance with ASTM D4956, the adhesive backing of the sheeting shall produce a bond that will support a 1-3/4 lb weight for 5 min, without the bond peeling for a distance of more than 2 in.

Shrinkage: The sheeting shall not shrink in any dimension more than 1/32 in. in 10 min or more than 1/8 in. in 24 h when tested in accordance with ASTM D4956.

Flexibility: The sheeting shall be sufficiently flexible to show no cracking when tested in accordance with ASTM D4956.

Liner Removal: The liner shall be easily removed without soaking in water or other solutions, and shall not break, tear, or remove adhesive from the sheeting. The liner shall be easily removed after accelerated storage as described in ASTM D4956.

Impact Resistance: The sheeting shall show no cracking or delaminating outside of the actual area of impact when subjected to the impact test in accordance with ASTM D4956.

Heat Resistance: Apply sheeting to standard panel and condition at standard conditions for 2 hours. Measure coefficients of retroreflection for all test geometries. Expose panel in an air circulating oven at 160 +/- 5°F (71 +/- 3°C) for a period of 24 hours. Re-condition after exposure and re-measure at all test geometries. Requirement - Coefficients of retroreflection measured after exposure shall be between 85% and 115% of the values measured before exposure.

Durability: The sheeting shall be weather resistant and show no appreciable cracking, scaling, pitting, blistering, edge lifting, or curling, or more than 1/32-in. (0.8-mm) shrinkage or expansion when tested in accordance with ASTM D4956.

Non-fluorescent materials shall maintain the levels of retroreflectivity indicated in Table XIII below for a period of twelve (12) years after installation.

Fluorescent yellow and fluorescent yellow green materials shall maintain the levels of retroreflectivity indicated in Table XIII below for a period of ten (10) years after installation.

Fluorescent orange materials shall maintain the levels of retroreflectivity indicated in Table XIII below for a period of three (3) years after initial use.

The sheeting daytime and nighttime color chromaticity coordinates for non-fluorescent sheetings shall be in accordance with Tables II and IV for a period of twelve (12) years after installation. The preceding color requirements shall apply to screen printed or transparent overlay film areas on white sheeting as well.

The sheeting daytime and nighttime color chromaticity coordinates for fluorescent sheetings, excluding fluorescent orange, shall be in accordance with Tables II and IV for a period of ten (10) years after installation.

The sheeting daytime and nighttime color chromaticity coordinates for fluorescent orange sheeting shall be in accordance with Tables II and IV for a period of three (3) years after initial use.

The sheeting daytime luminance factor Y(%) for CIE standard illuminant D65 and the 1931 CIE 2° standard observer for non-fluorescent material shall be in accordance with Table III for a period of twelve (12) years after installation.

TABLE XIII

Non-fluorescent colors: Age 0 years through 7 years:

Observation	Entrance					
Angle	Angle	White	Green	Red	Blue	Brown
0.2	-4	464	46	70	21	14
0.2	+30	176	18	26	8	6
0.5	-4	336	34	50	15	10
0.5	+30	120	12	18	6	4
1.0	-4	96	10	14	4	3
1.0	+30	36	4	6	2	1

Measurements shall be made per ASTM D4956 after sign cleaning. The values of 0 deg and 90 deg rotation are averaged to determine conformance.

For screen printed and E.C. film applied transparent colored areas on white sheeting, the coefficients of retroreflection shall not be less than 70% of the values for the corresponding color in the above table.

Non-Fluorescent colors: Age 7 years through 12 years:

Tront i del ecconi concient del jeune di ecconi ecc							
Observation	Entrance						
Angle	Angle	White	Green	Red	Blue	Brown	
0.2	-4	406	41	61	18	12	
0.2	+30	154	15	23	7	5	
0.5	-4	294	29	44	13	9	
0.5	+30	105	11	16	5	4	
1.0	-4	84	8	13	4	3	
1.0	+30	32	4	5	1	1	

Measurements shall be made per ASTM D4956 after sign cleaning. The values of 0 deg and 90 deg rotation are averaged to determine conformance.

For screen printed and E.C. film applied transparent colored areas on white sheeting, the coefficients of retroreflection shall not be less than 70% of the values for the corresponding color in the above table.

TABLE XIII (CONTINUED)

Fluorescent Yellow and Yellow-Green colors: Age 0 years through 10 years:

		Fluorescent	
Observation	Entrance	Yellow	Fluorescent
Angle	Angle	Green	Yellow
 0.2	-4	322	245
 0.2	+30	126	91
0.5	-4	238	175
0.5	+30	84	63
1.0	-4	67	50
 1.0	+30	25	19

Measurements shall be made per ASTM D4956 after sign cleaning. The values of 0 deg and 90 deg rotation are averaged to determine conformance.

Fluorescent Orange: Age 0 years through 3 years:

Observation	Entrance	Fluorescent
Angle	Angle	Orange
0.2	-4	123
0.2	+30	46
0.5	-4	88
0.5	+30	32
1.0	-4	25
1.0	+30	10

Measurements shall be made per ASTM D4956 after sign cleaning. The values of 0 deg and 90 deg rotation are averaged to determine conformance.

Type ASTM-XI Sheeting Approval and Matched Component Requirements: In addition to the manufacturer's sheeting material to be supplied, each of the manufacturer recommended matched component products listed within Bid Item Section V, as well as the manufacturer recommended matched component opaque and transparent inks, shall be approved by the WVDOH, as indicated on the WVDOH APL, in order for the particular manufacturer's material to be considered for award under Bid Item Section V. Matched component approval shall not be required for consideration of award of Bid Item Section VI.

MANUFACTURER'S FIELD PERFORMANCE OBLIGATION: The reflective sheeting processed, applied to sign blank materials, and cleaned in accordance with manufacturer's recommendations, shall perform effectively for the number of years as stated in this specification. The retroreflective sheeting will be considered unsatisfactory if it has deteriorated due to natural causes to the extent that: (1) the sign is ineffective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions; or (2) the coefficient of retroreflection during the specified warranty period is less than the minimum specified values as described herein; or (3) the Luminance Factor, High Conspicuity Luminance Factor, or Fluorescence Luminance Factor during the specified warranty period is less than the minimum specified values as described herein; or (4) the daytime color chromaticity coordinates for CIE standard illuminant D65 and the 1931 CIE 2° standard observer during the specified warranty period does not meet the requirements as described herein.

Where it can be shown that the performance of sheeting supplied and used according to the manufacture's recommendations have not been met, the manufacturer shall cover the sign costs as follows for sheeting shown to be unsatisfactory during:

- Years 0 thru 3 (fluorescent orange only): Material failing to meet requirements shall be replaced at a rate of 1 1/2 (replacement) to 1 (purchased).
- The First Seven Years (excludes fluorescent orange): The sheeting manufacturer will cover the cost of restoring the sign panel to its original effectiveness at no cost to the agency for materials or labor.
- Years 8 thru 10 (excludes fluorescent orange): The sheeting manufacturer will replace the sheeting required to restore the sign panel to its original effectiveness.
- Years 11 thru 12 (non-fluorescent only): The sheeting manufacturer will replace fifty percent of the sheeting required to restore the sign panel to its original effectiveness.

PROCESS INKS: Manufacturer recommended matched component inks shall be provided at no additional cost based on the following:

- Transparent Inks: 1 Gal. per 1200 sq. ft of sheeting (colors will be specified on order), or
- Black Ink: 1 Gal. per 2400 sq. ft. of sheeting

Ink supplied will be either transparent or black as specified on order.

Ink supplied will be rounded up to the next whole gallon.

All inks shall include a UV inhibitor.

Failure of the manufacturer's recommended matched component inks, whether supplied by the manufacturer or the WV Division of Highways, to properly perform on the sheeting will constitute a failure of the sheeting and replacement will be made as outlined herein.

SLIP SHEETING: Slip sheeting compatible with the reflective sheeting and inks shall be provided in rolls equal to the amount and size of reflective sheeting ordered at no additional cost.

WASHERS: Nylon washers shall be provided at no additional cost at the rate of 1000 washers per 3500 SF of sheeting ordered. Washers shall measure 5/16" (I.D.) x 7/8" (O.D.) x 1/16" thick, and shall be manufactured from commercial grade nylon. Total quantity of washers supplied shall be determined by rounding the total square footage of sheeting ordered up or down to the nearest multiple of 3500. For inventory purposes, washers shall be supplied in individual packages of 1000 ea.

GENERAL CHARACTERISTICS AND PACKAGING: The reflective sheeting as supplied shall be free from ragged edges, cracks, and extraneous materials and shall be furnished in both rolls and sheets. The average number of splices shall not be more than three per 50 yard roll with a maximum of four per 50 yard of material and splices shall be suitable for continuous application as supplied.

Rolls shall be packaged in corrugated fiberboard boxes in such a manner that no damage or defacement may occur to the reflective sheeting during shipment or storage.

Cut sheets shall be packaged flat between pressed composition boards or corrugated pads of the same dimensions as the sheets and shall be so packed as to prevent damage or defacement during shipment or storage.

The reflective sheeting as supplied and stored under normal conditions shall be suitable for use for at least one year after purchase.

OPAQUE OVERLAY FILM - SPECIFICATIONS

General: This material shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the manufacturer without appreciable stretching, tearing, or other damage. The material shall permit cutting and application at temperatures of 40 to 100 F. This film shall be an opaque cast vinyl.

Liner: A polyethylene coated liner shall resist moisture absorption and static buildup, shall lay flat for easier assembly of graphics and shall allow superior cutting and weeding. With the exception of 1/2, 5/8, 3/4, 7/8, 1-1/4, and 2 inch widths, the liner shall be transparent with no reference or grid lines. 1/2, 5/8, 3/4, 7/8, 1-1/4, and 2 inch widths shall be supplied on a paper liner. Liner shall be unpunched and shall be acceptable for kiss-cutting on electronic cutting machines.

Thickness: The thickness of the film graphic shall be 2 mils (without adhesive), or 3.0 to 4.0 mils with adhesive.

Adhesive: This material shall utilize a pressure sensitive adhesive.

Chemical Resistance: This material shall resist mild alkalis, mild acids, and salt. The material shall exhibit excellent resistance to water, with exception to cases of submersion.

Shrinkage: After application, this material shall not exhibit shrinkage in excess of 0.010 inches.

Durability: This product shall perform at an acceptable level to serve its' intended purpose for the entire warranty periods specified for the sheetings that it is recommended for use with. Additional specific durability requirements related to opaque overlay films are included in the sheeting specifications herein.

GENERAL CHARACTERISTICS AND PACKAGING: The material shall withstand a shelf life of two years after receipt from the manufacturer. Processed film shall have a shelf life of one year.

Rolls, sheets, or letters shall be individually packaged in suitable containers and in such a manner that no damage or defacement may occur to this graphic film during transport to destination.

TRANSPARENT OVERLAY FILM - SPECIFICATIONS

General: This material shall have sufficient strength so that it can be handled, processed, and applied according to the recommendations of the manufacturer without appreciable stretching, tearing, or other damage. The material shall permit cutting and application at temperatures of 40 to 100 F. This film shall be acrylic.

Adhesive: This material shall utilize a transparent pressure sensitive adhesive.

Chemical Resistance: This material shall resist mild alkalis, mild acids, and salt. The material shall exhibit excellent resistance to water, with exception to cases of submersion.

Color Standards: Standard colors shall conform to appropriate retroreflective sheeting specifications- Federal Specification FP-96, Section178.01 (a) and ASTM D4956 when applied over the manufacturer's approved white sheetings.

Transparency: After application over the manufacturer's white sheeting, the film's level of transparency shall result in a measured retroreflectivity level falling within a specific range dependent on the Type sheeting utilized. This range is specified as part of the sheeting material specifications herein.

Liner: This material shall be supplied on a clear liner acceptable for kiss-cutting on electronic cutting machines. The liner shall be unpunched.

Durability: This product shall perform at an acceptable level to serve its' intended purpose for the entire warranty periods specified for the sheetings that it is recommended for use with. Additional specific durability requirements related to transparent overlay films are included in the sheeting specifications herein.

GENERAL CHARACTERISTICS AND PACKAGING: The material shall withstand a shelf life of one year after receipt from the manufacturer. Processed film shall have a shelf life of one year.

Rolls, sheets, or letters shall be individually packaged in suitable containers and in such a manner that no damage or defacement may occur to this graphic film during transport to destination.

OPAQUE AND TRANSPARENT INK - SPECIFICATIONS

General: The material shall permit application at temperatures of 40 to 100 F.

Chemical Resistance: This material shall resist mild alkalis, mild acids, and salt. The material shall exhibit excellent resistance to water, with exception to cases of submersion.

Color Standards: Standard colors shall conform to appropriate retroreflective sheeting specifications- Federal Specification FP-96, Section178.01 (a) and ASTM D4956 when applied over the manufacturer's approved white sheetings.

Transparency: With the exception of opaque (black) ink, after application over the manufacturer's white sheeting, the ink's level of transparency shall result in a minimum measured retroreflectivity level dependent on the color ink and Type sheeting utilized. These minimum levels are specified as part of the sheeting material specifications herein.

Durability: This product shall perform at an acceptable level to serve its' intended purpose for the entire warranty periods specified for the sheetings that it is recommended for use with. Additional specific durability requirements related to opaque and transparent inks are included in the sheeting specifications herein.

BID SCHEDULE FOR AWARD

- Bid Item Section I will be evaluated, and if need be, awarded independently of the other Bid Item Sections.
- Bid Item Sections II, V, and VII will be evaluated as a whole, and will be awarded as such. If need be, these Sections will be awarded independently of the other Bid Item Sections.
- Bid Item Section III will be evaluated, and if need be, awarded independently of the other Bid Item Sections.
- Bid Item Section IV will be evaluated, and if need be, awarded independently of the other Bid Item Sections.
- Bid Item Section VI will be evaluated, and if need be, awarded independently of the other Bid Item Sections.
- Bid Item Section VIII will be evaluated, and if need be, awarded independently of the other Bid Item Sections.

Vendors are to submit pricing for each Item within the Sections they are bidding, regardless of the presence of a value in the Estimated Quantity column.

For Items without a value in the Estimated Quantity column, the vendor is to submit their price for one (1) roll in the Unit Cost column. The Total Cost column should be left blank in this case.

All material shall be quoted in the width and length rolls specified. The only exception allowed for this shall be in the case of material specified as a width and length combination of 12-3/4" x 100 yds. (Item numbers 197-201, 229, and 331-336). These items may be supplied in 50 yd rolls if indicated by the Vendor on the Bid Sheet. If the Vendor elects to supply any of these particular items in 50 yd rolls, the value submitted in the Unit Price column shall be for a 50 yd roll. Furthermore, if a value is indicated in the Estimated Qty column, the amount submitted by the Vendor in the Total Amount column should be double the value calculated by multiplying the value in the Estimated Qty column by the value in the Unit Price column.

In determining the Vendor's total bid for each Section for award purposes, the figures in the Total Cost column associated with Items with an estimated quantity indicated will be totaled. Pricing for Items without a value in the Estimated Quantity column will not be used in determining the award of the Contract.

The estimated quantities shown on the Bid Schedule are estimated quantities only. Actual quantities ordered may be more or less than those shown.

đ	9	æ	7	6	Ø1	4	د	2	_		ITEM NJMBER
7		6	19	5	6						ESTIMATED
Transfer Tape, Low Tack 48"x100 yds	Transfer Tape, Low Tack 42"X100 yds	Transfer Tape, Low Tack 35"x100 yds	Transfer Tape, Low Tack 30"x100 yds	Transfer Tape, Low Tack 24"X100 yds	Transfer Tape, Low Tack 18"X100 yds	Transfer Tape, Low Tack 15"x100 yds	Trensfer Tape, Low Tack 12"X100 yds	Transfer Tape, Low Teck. 3'x100 yds	Transfer Tape, Low Tack 2"x100 yds	BID ITEM SECTION I • TRANSFER TAPES	DESCRIPTION
											SPECIAL REQUIREM BYTS
											MANUFACTURER PRODUCT CODE
											UNIT COST
											TOTAL COST
											INVENTORY SUBCODE (DOH USE ONLY)

BID SCHEDUL

30	29	28	27	26	25	24	23	22	21	20	160	18	17	16	σi G	14	ಚ	12	=		NUMBER
-	1	1	-	-	۵.	-	-	.	-	1		1	1	-1	-	-		_	<u> </u>		ESTIMATED QTY
Type ASTM-I Reflective Sheeting, Pressure Sensitive 1"x50 yds Yellow		ļ .	1/2"x50 yds	Type ASTMI Reflective Sheeting, Pressure Senstitys 48°x50 yds Yellow	Type ASTM-I Reflective Sheeling, Pressure Sensitive 49°x50 yds White	Type ASTM/ Reflective Sheeting, Pressure Sensitive 42"x50 yds. Yellow	42"x50 yds.		36"x50 yds	Type ASTMI Reflective Sheeting, Pressure Sensitive 30°x50 yds Yellow	30"x50 yds		24"x50 yds	ļ		Type ASTMI Reflective Sheeting, Pressure Senstive 15" x50 yds Yetlow	Type ASTN-I Reflective Sheeting, Pressure Sensitive 18" x50 yds White	15*x50 yds.	Type ASTM1 Reflective Sheeting, Pressure Sensitive 15"x50 yds. White	BID ITEM SECTION II - TYPE I SHEETING & TYPE I SHEETING FILMS	DESCRIPTION
to +1/16*	to +1/16"	to +1/16"	Width tolerance + to +1/16"	Minimum width overage to be 7/16"	overage to be 7/16"	overage to be 5/16*	Minimum width overage to be 5/16"	Maimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 1/2	Mainum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2*	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2*	Minimum width overage to be 1/2"	Minimum width overage to be 1/16"	Minimum width overage to be	TING FILMS	SPECIAL REQUIREMENTS
-	2										7						-				MANUFACTURER PRODUCT CODE
-																					UNIT COST
																					TOTAL COST
112100	111100	112050	111050	112048	111048			112036	111036	112030	111030	112024	111024		111021	112018		112015	111015		INVENTORY SUBCODE (DOH USE ONLY)

52	51	50	49	48	47	46	å	44	43	42	41	46	39	38	37	36	35	34	33	32	31		NEWN
-	-	٠			1	1	-	1	-	_	-		-	_	-	-A		1	-	_		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ESTIMATED QTY
EC firm Transparent, Pressure Sensitive, Acrylic 18"x50 yds. Green	EC film Transparent, Pressure Sensitive, Acrylic 16"x50 yds. Slue	EC film Transparent, Pressure Sensilive, Acrylic 16"x50 yds. Red	EC film Transparent, Pressure Sensitive, Acrylic 16"x50 yds. Yellow	EC film Transparent, Pressure Senstive, Accytic 15"x50 yds. Brown	EC fürn Transparent, Pressure Sensitive, Acrylic 15"x50 yds. Grean	EC făm Transparent, Pressure Sensitive, Acrylic 15'x50 yds. Blue	EC firm, Transparent, Pressure Sensitive, Acrylic 15"x50 yds. Rad	EC im Transparent, Ressure Sensitive, Acrylic 15"x50 yds. Yellow	EC film, Transparent, Pressure Sensitive, Acrylic 12"x50 yds. Brown		ECfilm Transparent, Pressure Sensitive, Acrylic 12"x50 yds. Blue	ECfilm Transparent, Pressure Sensitive, Acrylic 12"x50 yds. Red	EC film Transparent, Pressure Senstive, Acrylic 12"x50 yds. Yelkw		42"x50 yds.	1	Type ASTM Reflective Sheeting, Pressure Sensitive 30°x50 yds Blue	Type ASTM-I Reflective Sheeling, Pressure Sensitive 24"x50 yds Blue	Type ASTM Reflective Sheeling, Pressure Sensitive 21"x50 yds Blue	Type ASTM-I Reflective Sheeting, Pressure Sensitive 18" x50 yds Blue	Type ASTM Reflective Sheeting, Pressure Sensitive 15"x50 yds. Blue	BID ITEM SECTION II - TYPE I SHEETING & TYPE I SHEETING FILMS (CONTINUED)	DESCRIPTION
														Winimum width overage to be 7/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16*	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be \$/2"	Minimum width overage to be 1/16"	MS (CONTINUE	SPECIAL REQUIREMENTS
																						٥	MANUFACTURER PRODUCT CODE
																							UNI COST
																							TOTAL COST
904018														115048		115036	115030	115024			115015		IM/BUTORY SUBCODE (DOH USE (DALY)

81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53		NUMBER
-	_	_			_	1		-	-	-		_	-1		1	_		_	-	_		-	1			_	-	-		ESTIMATED
EC fan Opaque, Pressure Sensitive, Cast Viryl 3/4"x50 yds Black (Opaque)	5/8"x50 yds	EC film Opaque, Pressure Sensitive, Cast Vtryl. 3/8"x50 yds Black (Opaque)	EC fam Transparent, Pressure Sensitive, Acrylic 48"x50 yds. Brown	EC film, Transparent, Pressure Sensitive, Acrylic 48'x50 yds. Green	SC film, Transparent, Pressure Sansitive, Acrylic 48"x50 yds. Blue	EC fam Transparent, Pressure Senstitive, Acrylic 48"x50 yds. Red	EC fin Transparent, Pressure Sensitive, Acrylic 46"x50 yds. Yellow	EC fan Transparent, Pressure Sensitive, Acrylic 42"x50 yds. Brown	EC film Transparent, Pressure Sensitive, Acrylic 42"x50 yds. Green	EC film Transparent, Pressure Sensitive, Acrylic 42"x50 yds. Blue	EC fan Transparent, Ressure Sensitive, Acrylic 42"x50 yds. Red	EC fan Transparent Pressure Sensitive Acrylic 42"x50 yds. Yellow	EC film Transparent, Pressure Sensitive, Acrylic 35"x50 yds, 8rown	EC film, Transparent, Pressure Sensitive, Acrylic 35'x50 yds. Green	EO fân Transparent, Pressure Senstitve, Acrylic 36"x50 yds. Blue	EC film Transparent, Pressure Sensitive, Acrylic 36"x50 yds. Red	EO film, Transparent, Pressure Sensitive, Acrylic 36"x50 yds. Yellow	EC tim Transparent Pressure Sensitive, Acrylic 30'x50 yds. Brown	EC fün Transparent Pressure Sensitive, Acrylic 30"x50 yds. Green	EC film, Transparent, Pressure Sensitive, Acrylic 30'x50 yds. Blue	SC film, Transparent, Pressure Sensitive, Acrylic 30"x50 yds. Red	EC film, Transparent, Pressure Sensitive, Acrylic 30"x50 yds, Yellow	EC lim Transparent, Pressure Sensitive, Acrylic. 24"x60 yds. Brown	EC fürn Transparent, Ressure Sensitive, Acrylic 24"x50 yds. Green	EC film Transparent, Pressure Sensitive, Acrylic 24"x50 yds, 8lue	EC film, Transparent, Pressure Sensitive, Acrylic 24"x50 yds. Red	1	EC tim, Transparent, Pressure Sensitive, Acrylic 18"x50 yds. Brown	BID ITEM SECTION II - TYPE I SHEETING & TYPE I SHEETING FILMS (CONTINUED)	DESCRIPTION
																													AS (CONTINUE	REQUIREMENTS
																													<u>D)</u>	PRODUCT CODE
																														Gal.
-																														IOIAL COSI
518075	518062	518038	906048	904048	905048				904042				906036	904036	905036		902036	906030	904030	905030	907030		906024	904024	905024	907024	902024	906018		SUBCODE (DOH USE (DOH USE

107	106	105	104	103	102	101	100	99	88	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	B2		NJMBER
-	_	-	-	-	-	-	<u>-</u>	-	-	-	_	-	-	-	<u>-</u>	-3	-	-	-	-	-	-	_	_	-		ΩTY
EC film Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds Blue	EC film, Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds Yellow	EC film, Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds Black	EC film, Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds Matte White	EC film, Opaque, Pressure Sensitive, Cast Vinyl 48"x50 yds Blue	EC film, Opaque, Pressure Sensitive, Cast Vinyl 48"x50 yds Yellow	EC film, Opaque, Pressure Sensitive, Casl Vinyl 48"x50 yds Black	EC film, Opaque, Pressure Sensitive, Cast Vinyl 48"x50 yds Matte White	EC film, Opaque, Pressure Sensitive, Cast Vinyl 35'x50 yds Blue	EC film Opaque, Pressure Sensitive, Cast Viryl 35°x50 yds Yellow	EC film, Opaque, Pressure Sensitive, Cast Vinyl 36"x50 yds Black	EC film, Opaque, Pressure Sensitive, Cast Viryl 35°x50 yds Watte White	EC film, Opaque, Pressure Sensitive, Cast Viryl 30"x50 yds Blue	EC film Opaque, Pressure Sensitive, Cast Vhyl 30"x50 yds Yellow	EC film, Opaque, Pressure-Sensitive, Cast Vinyl 30"x50 yds Black	EC fün, Opaque, Pessure Sensitive, Cast Vinyl 30"x50 yds Matte White	EC film Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Blue	EC fin, Opaque, Pressure Sensitiva, Cast Vinyl 24"x50 yds Yellow	EC fim, Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Black	EC film, Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Watte White	EC firm, Opaque, Pressure Sensitive, Cast Vinyl 18"x50 yds Blue	EC film, Opaque, Pressure Sensitive, Cast Vinyl 16"x50 yds Yellow	EC film, Opaque, Pressure Sensitive, Cast Vinyl 18"x50 yds Black	EC film, Opaqua, Pressure Sensitive, Cast Viry! 18"x50 yds Watte White	EC film, Opaque, Pressure Sensitive, Cast Vinyl 1-1/4"x50 yds Black (Opaque)	EC film Opaque, Pressure Sensitive, Cast Viny! 7/8"x50 yds Black (Opaque)	BID ITEM SECTION II - TYPE I SHEETING & TYPE I SHEETING FILMS (CONTINUED)	
																										MS (CONTINUE	REQUIREMENTS
																										0)	PRODUCT CODE
						518048			512036	518036			512030	518030				518024						518125	516088		SUBCODE (DOH USE ONLY)

127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	=	110	109	108		ITEM NUMBER
				10	22		ŧ	16	21	54	76	20	28		cn cn	O1	۵				ESTIMATED QTY
EC fan, Transparent, Pressure Senstitive, Acrylic 12"x50 yds, Green	12"x50 yds.	EC flm, Transparent, Pressure Sensitive, Acrylic 12'x50 yds. Red	EC film Transparent, Pressure Sensitive, Acrylic 12"x50 yds. Yellow	Type ASTMII Reflective Sheeting, Pressure Sensitive 48"x50 yds Yellow	Type ∧STNAE Reflective Sheeting, Pressure Sensitive 48"x50 yds White	Type ASTM-B Reflective Sheeting, Pressure Sensitive 42"x50 yds, Yellow	42"x50 yds.	!	1	Type ASTM-III Reflective Sheeting, Pressure Sensitive 30"x50 yds. Yellow	Type ASTM-III Reflective Sheeting, Pressure Sensitive 30"x50 yds White	Type ASTM Bellective Sheeting, Pressure Sensitive 24"x50 yds Yellow	Type ASTIM Reflective Sheeting, Pressure Sensitive 24"x50 yds White	ľ	1	Type ASTM-III Reflective Sheeting, Pressure Sensitive 18"x50 yds Yellow	Type ASTW-II Reflective Sheeting, Pressure Sensitive 18'x50 yds White		Type ASTIA-II Reflective Sheeting, Pressure Sensitive 15"x50 yds. White	BID ITEM SECTION III - E.C. & VINYL FILM DEPENDENT TYPE III SHEETINGS & TYPE III SHEETING FILMS	DESCRIPTION
-				Minimum width overage to be 7/16"	Minimum width overage to be 7/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Winknum width overage to be 5/16"	Minimum width overage to be 1/2*	Minimum width overage to be 1/2*	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width everage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/16"	Minimum width overage to be	& TYPE III SHE	SPECIAL REQUIREMENTS
	:																			ETING FILMS	MANUFACTURER PRODUCT CODE
																					UNT COST
																					TOTAL COST
				212048	211048	212042	211042	212036	211036	212030	211030	212024	211024		211021	212018	211018		211015		INVENTORY SUBCODE (DOH USE ONLY)

153	152	151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128		ITEM NUMBER
	7	2	:			34	~			-	7					8											ESTIMATED QTY
EC fan Transparent, Pressure Sensitive, Acrylic 35"x50 yds. Brown	EC film Transparent, Pressure Senstitve, Acrylic 36"x50 yds. Green	EC film, Transparent, Ressure Sensitive, Acrylic 36"x50 yds. Blue	EC film, Transparent, Pressure Sensitive, Acrylic 36"x50 yds, Red	EC film, Transparent, Pressure Senstive, Acrylic 36"x50 yds. Yellow	EC fân, Transparent, Pressure Sensilive, Acrylic 30"x50 yds. Brown	SC film Transparent, Pressure Sensitive, Acrylic 30"x50 yds. Green	EC film, Transparent, Pressure Sensitiva, Acrylic 30°x50 yds. Blue	EC film, Transparent, Pressure Sensitive, Acrylic 30"x50 yds. Red	EC film, Transparent, Ressure Sensitive, Acrylic 30"x50 yds, Yellow	60 film Transparent, Pressure Sensitive, Acrylic 24"x50 yds. Brown	EC film Transparent, Pressure Sensitive, Acrylic 24'x50 yds. Green	EC fam Transparent, Pressure Sensitive, Acrylic 24"x50 yds. Blue	EC firm, Transparent, Pressure Sensitive, Acrylic 24'x50 yds. Red	EC fâm, Transparent, Pressura Senstitive, Acrylic 24"x50 yds. Yellow	EC film Transparent, Pressure Sensitive, Acrylic 18"x50 yds. Brown	EC fün, Transparent, Pressure Sensitive, Acrylic 18"x50 yds. Green	£C firm Transparent, Pressure Sensitive, Acrylic 16"x50 yds. Blue	EC firt, Transparent, Pressure Sensitive, Acrylic 16"x50 yds, Red	EC film Transparent, Pressure Sensitive, Acrylic 18"x50 yds. Yellow	EC film Transparent, Pressure Sensitive, Acrylic 15"x50 yds. Brown	EC fam Transparent, Pressure Senstitve, Acrylic 15"x50 yds. Green	EC firm Transparent, Pressure Sensitive, Acrylic 15"x50 yds. Blue	EC fim Transparent, Pressure Sensitive, Acrylic 15"x50 yds, Red	EC lim Transparent, Prassure Sensitive, Acrylic 15"x50 yds. Yellow	EC film Transparent, Pressure Sensitive, Acrylic 12"x50 yds. Brown	BID ITEM SECTION III - E.C. & VINYL FILM DEPENDENT TYPE III SHEETINGS & TYPE III SHEETING	DESCRIPTION
																									:		
																										FILMS (CONTINUED	MANUFACTURER PRODUCT CODE
-																											UNIT COST
																											TOTAL COST
906036	904036	905036		902036	906030	904030	905030	907030		906024	904024	905024	907024	902024	906018	904018											INVENTORY SUBCODE (DOH USE ONLY)

182	181	188	179	178	177	176	175	174	173	172	171	170	169	168	167	166	165	164	163	162	161	160	159	158	167	156	155	154		NUMBER
2				2				4						_				-		2	4				-					ESTIMATED QTY
E≎ film Opaque, Pressure Sensilive, Cast Viryl 36"x50 yds Black	36"x50 yds	EC film, Opeque, Pressure Senstive, Cast Vinyl 30"X50 yds Blue	30"×50 yds	1	EC firm, Opaque, Pressure Sensitive, Cast Vinyl 30"X50 yds Matte White	EC film, Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Blue	EC film, Opaque, Pressure Sensitive, Cast Viry! 24"x50 yds Yellow	EC firm Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Black	EC firm, Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Matte White	EC fim Opaque, Pressure Sensitive, Cast Viny) 18"x50 yds Bius	EC film Opaque, Pressure Sensitive, Cast Viryl 18"x50 yds Yellow	EC film, Opaque, Pressure Sensitive, Cast Viryl 18"x50 yds Slack	EC firn, Opaque, Pressure Sensilive, Cast Vinyl 18"x50 yds Matte White	1-1/4"x50 yds	EC firn, Opaque, Pressure Senstive, Cast Viryi 7/8"x50 yds Black (Opaque)	1	1	3/8"x50 yds	48"x50 yds,	EC fürt, Transparent, Pressure Sensitive, Acrylic 48"x50 yds. Green	EC firm Transparent, Pressure Senstive, Acrylic 48"x50 yds. Blue		EC film, Transparent, Pressure Sensitive, Acrylic 48'X50 yds. Yellow	EC ligh Transparent, Pressure Sensitive, Acrylic 42'x50 yds. Brown	EC fire, Transparent, Pressure Sensitive, Acrylic 42"x50 yds. Green	EC film Transparent, Pressure Sensitive, Acrylic 42"x50 yds. Blue	EC fan, Transparent, Pressure Sensitive, Acrylic 42'x50 yds. Rad	EC fin Transparent Pressure Sensitive, Acrylic 42"x50 yds. Yellow	BID ITEM SECTION III - E.C. & VINYL FILM DEPENDENT TYPE III SHEETINGS & TYPE III SHEE	DESCRIPTION
																													E III SHEETING	SPECIAL REQUIREMENTS
																													TING FILMS (CONTINUED)	MANUFACTURER PRODUCT CODE
																													٤	UNIT COST
																														TOTAL COST
518036			512030	518030				518024		-				518125	518088	518075	518062	518038	906048	904048	905048				804042					INVENTORY SUBCODE (DOH USE ONLY)

İ		-	T .	l	1	T		Τ-	T		Т	
	192	191	190	189	188	187	186	ig.	184	183		ITEM NJM BER
							2					ESTIMATED QTY
	EC film, Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds Blue	EC film, Opeque, Pressure Sensitive, Cast Viry/ 60"x50 yds Yellow	EC firm Opaque, Pressure Sensitive, Cast Viryl 60"x50 yds Black	EC film, Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds Matte White	EC film Opaque, Pressure Sensitive, Cast Viny! 48"X50 yds Blue	EC film Opaque, Pressure Sensitive, Cast Vinyl 45"X50 yds Yellow	EC film Opaqua, Pressure Sensitiva, Cast Vinyl 48"X50 yds Black	EC film Opaque, Pressure Sensitive, Cast Vinyl 48"X50 yds Watte White	EC fam Opaque, Pressure Sensäive, Cast Vinyl 36"x50 yds Blue	EC film Opaque, Pressure Sensitive, Cast Viry! 36"x50 yds Yellow	BID ITEM SECTION III - E.C. & VINYL FILM DEPENDENT TYPE III SHEETINGS & TYPE III SHEETING FILMS (CONTINUED)	DESCRIPTION
											III SHEETING F	SPECIAL REQUIREMENTS
											FILMS (CONTINUED	MANUFACTURER PRODUCT CODE
												UNIT COST
												TOTAL COST
							518048			512036		INVENTORY SUBCODE (DOH USE ONLY)

The state of the s

211	210	209	208	207	206	205	204	203	202	201	200 27	199 20	198	197 4	196	196	194	193		
Type ASTM-III Reflective Sheeting, Pressure Sensitive 24*x50 yds. Blue	Type ASTM-III Reflective Sheeting, Pressure Sensitive 21"x50 yds Brown	Type ASTM-III Reflective Sheeting, Pressure Sensitive 21"X50 yds Green	Type ASTM-III Reflective Sheeting, Pressure Sensitive 21"x50 yds Blue	Type ASTM-II Reflective Sheeting, Pressure Sensitive 16"x50 yds, Brown	Type ASTM-Ill Reflective Sheeting, Pressure Sensitive 18"x50 yds. Green	Type ASTM-II Reflective Sheeting, Pressure Sensitive 18"x50 yds. Blue	15"×50 yds.	Type ASTM-II Reflective Sheeting, Pressure Sensitive 15"x50 yds. Green	Type ASTM-II Reflective Sheeting, Pressure Sensitive 15'X50 yds. Blue	Type ASTM-II Rellective Sheeting, Pressure Sensitive 12-3/4"x100 yds Brown	Type ASTM-II Reflective Sheeting, Pressure Sensitive 12-3/4"x100 yds Green	Type ASTM-II Reflective Sheeting, Pressure Sensitive 12-3/4"x100 yds Blue	Type ASTM-III Reflective Sheeting, Pressure Sensitive 12-3/4"x100 yds Yellow	Type ASTM-III Reflective Sheeting, Pressure Sensitive 12-34"x100 yds White	Type ASTM-III Reflective Streeting, Pressure Sensitive 1"x50 yds Yellow	Type ASTM-III Reflective Sheeting, Pressure Sensitive 1"x50 yds White	Type ASTM-II Reflective Sheeting, Pressure Sensitive 1/2"x50 yds Yellow	Type ASTM-III Reflective Sheeting, Pressure Sensitive 1/2"x50 yds White	BID ITEM SECTION IV - NON E.C. & VINYL FIL	
g	Q.	0)	0)	91	0)	01				Item to be supplied Width tolerance +0" in 50 yd rolls to +1/16"	llem to be supplied Width tolerance +0" in 50 yd rolls □ to +1/16"	Rem to be supplied Width tolerance +0" in 50 yd rolls ☐ to +1/16"	in 50 yd rolls O	%em to be supplied Width tolerance +0" in 50 yd rols □ to +1/16"		* *	*	* *	& VINYL FILM DEPENDENT TYPE III SHEE	
Minimum width overage to be 1/2"	Maimum width overage to be 1/2*	Minimumwidth overage to be 1/2*	Minimum width overage to be 1/2*	Minimum width overage to be 1/2"	Maninum width overage to be 1/2*	Minimum width overage to be 1/2"	Minimum width overage to be 1/16"	Minimum width overage to be 1/16"	wantrum width overage to be 1/16"	Midth tolerance +0" to +1/16"	idth tolerance +0" to +1/16"	idth tolerance +0" to +1/16"	Width tolerance +0" to +1/16"	idth tolerance +0" to +1/16*	to +1/16*	to +1/16"	to +1/16"	to +1/16"	III SHEETINGS	
																			S	
																			1	
									215015	216012	214012	215012	212012	211012		211100		211050		ONLY)

															٤_
225	224	223	222	221	220	219	218	217	216	215	214	213	212		NUMBER
															ESTIMATED QTY
48"x50 yds	Type ASTM-II Reflective Sheeting, Pressure Sensitive 48"x50 yds Green	Type ASTM-II Reflective Sheeting, Pressure Sensitive 48"x50 yds Blue	Type ASTM Reflective Sheeting, Pressure Sensitive 42"x50 yds, Brown	Type ASTM-II Reflective Sheeting, Pressure Sensitive 42"x50 yds. Green	Type ASTM-II Reflective Sheeting, Pressure Senstive 42"X50 yds. Blue	Type ASTM-III Reflective Sheeting, Pressure Sensitive 38"x50 yds Brown	1	Type ASTIA-II Reflective Sheeting, Pressure Sensitive 38"x50 yds Blue	Type ASTM-III Reflective Sheeting, Pressure Sensitive 30"x50 yds Brown	Type ASTM-II Reflective Sheeting, Pressure Sensitive 30"x50 yds Green	Type ASTM-III Reflective Sheeting, Pressure Sensitive 30"x50 yds Blue	Type ASTM-II Reflective Sheeting, Pressure Sensitive 24"x50 yds. Влоwл	Type ASTM-III Reflective Sheeting, Pressure Sensitive 24"x50 yds. Green	BID ITEM SECTION IV - NON E.C. & VINYL FILM DEPENDENT TYPE III SHEETINGS (CO	DESCRIPTION
Minimum width overage to be 7/16"	Minimum width overage to be 7/16*	Minimum width overage to be 7/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16**	Minimum width overage to be 5/16"	Mainum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2*	Minkrum width overage to be 1/2"		
														ONTINUED)	MANUFACTURER PRODUCT CODE
															UNIT COST
															TOTAL COST
216048	214048	215048		214042	215042		214036	215036	216030	214030	215030	216024			INVENTORY SUBCODE (DOH USE ONLY)

244	243	242	241	240	239	238	237	236	235	234	233	232	231	230	229	228	227	226		NUMBER
12	4								4	<u>-</u>					2			6		ESTIMATED QTY
24"x50 yds. Fluorescent Yellow	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 24"x50 yds. Fluorescent Orange	White	21"x5D yds Fhorescent Yellow-Green	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 21'x50 yds Fluorescent Yellow	1	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 21"x50 yds White		Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 18"x50 yds. Fluorescent Yellow	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 18"x50 yds. Fluorescent Orange	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 18"x50 yds. White		15"x50 yds.		Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 15"x50 yds. White	ltem to be supplied Width tolerance Type ASTM-XI Reflective Sheeting, Pressure Sensitive 12-3/4"x100 yds Fluorescent Yellow-Green in 50 yd rolls Ci to +1/16" (To be used in the fabrication of flat sheet signs)	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 12"x100 yds Fluorescent Yellow	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 12"x100 yds White	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 9"x100 yds. Fluorescent Yellow-Green	BID ITEM SECTION V - E.C. & VINYL FILM DEPENDENT TYPE IX OR XI SHEETINGS & TYPE IX	DESCRIPTION
Minimum width overage to be 1/2*	Mnimum width overage to be 1/2"	Winimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/16"	Mdth tolerance +0* to +1/16"					SPECIAL REQUIREMENTS			
																			OR XI SHEETING FILMS	MANUFACTURER PRODUCT CODE
																				UNIT COST
																				TOTAL COST
612024	613024	611024					612418	612018		611018					612412	612012	611012			INVENTORY SUBCODE (DOH USE ONLY)

259	258	257	256	255	254	263	252	251	250	249	248	247	246	245		ITEM NUMBER
ယ	N						12	Çn.		N	G.					ESTIMATED QTY
l	Type ASTM-IX or ASTM-XI Reflactive Sheeting, Fressure Sensitive 48"x50 yds White	42"x50 yds.	42"x50 yds.	42"x50 yds.	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 42'x50 yds. White	36"x50 yds	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Senstive 35'x50 yds Fluorescent Yellow	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 36"x50 yds Fluorescent Orange	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 36"x50 yds White	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 30"x50 yds Fluorescent Yellow-Green	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Senstive 30'x50 yds Fluorescent Yellow	Type ASTM/X or ASTM/XI Reflective Sheeting, Pressure Sensitive 30°x50 yds Fluorescent Orange	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 30"x50 yds White	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 24'x50 yds. Fluorescent Yellow-Green	BID ITEM SECTION V · E.C. & VINYL FILM DEPENDENT TYPE IX OR XI SHEETINGS & TYPE IX OR XI SHEETING FILMS (CONTINUED)	DESCRIPTION
Minimum width overage to be 7/16"	Minimum width overage to be 7/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 5/16*	Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Mininum width overage to be 5/16"	Minrum width overage to be 5/16*	Mairum width overage to be 1/2"	Minimum width overage to be 1/2*	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	EIX OR XI SHEE	SPECIAL REQUIREMENTS
															TING FILMS (CON	MANUFACTURER PRODUCT CODE
															TINUED)	UNIT COST
																TOTAL COST
613048	611048					612436	612036	613036	611036	612430	612030	613030		612424		INVENTORY SUBCODE (DOH USE ONLY)

902036					EC film Transparent, Pressure Sensitive, Acrylic 36"x50 yds. Yellow		287
906030					EC fâm Transparent, Pressure Sensitive, Acrylic 30"x50 yds, Brown		286
904030					EC film Transparent, Pressure Sensitive, Acrylic 30"x50 yds. Green		285
905030					EC film Transparent, Pressura Sensitive, Acrylic 30*x50 yds. Blue		284
807030					EC film Transparent, Pressura Senstitve, Acrylic 30°x50 yds. Rod		283
-					ł.		282
908024					EC film Transparent, Pressure Senstive, Acrylic 24"x50 yds. Brown		281
904024					EC fün, Transparent, Pressure Sensitive, Acrylic 24"x50 yds. Green		280
905024					EC firm Transparent, Pressure Sensitive, Acrylic 24"x50 yds. Blue		279
907024					EC firm, Transparent, Pressure Sensitive, Acrylic 24"x50 yds. Red		278
902024					EC film Transparent, Pressure Senstitve, Acrylic 24'x50 yds. Yellow		277
906018					EC fün Transparent, Pressure Senshive, Acrylic 18'x50 yds. Brown		276
904018					ECrim Transparent, Pressure Senstive, Acrylic 18'x50 yds. Green		275
-					EC film Transparent, Pressure Sansitive, Acrylic 18'x50 yds. Blue		274
					ECTilm Transparent, Pressure Sensitive, Acrylic 18"x50 yds, Red		273
					EC fün Transparent, Pressure Sensitive, Acrylic 16'x50 yds. Yellow		272
					EC fim Transparent, Pressure Sensitive, Acrylic 15'x50 yds. Brown		271
					EC Ilm, Transparent, Pressure Senstive, Agrylic 15'x50 yds. Green		270
					EC film, Transparent, Pressure Senstitve, Acrylic 15'x80 yds. Blue		269
					EC film, Transparent, Pressure Senstitve, Acrylic 15'x50 yds. Red		268
					EC fam Transparent, Pressure Sensitive, Acrylic 15"x50 yds, Yellow		267
					EC film Transparent, Pressure Sensitive, Acrylic 12"x50 yds. Brown		266
					EC film Transparent, Pressure Sensitive, Acrylic 12"x50 yds, Green		265
					ÉC tâm Transparent, Pressure Senstitvo, Acrylic 12'x50 yds. Blue		264
					EC film Transparent, Pressure Sensitive, Acrylic 12'x50 yds. Red		263
<u> </u>					EC film, Transparent, Pressure Sensitive, Acrylic 12'x50 yds. Yellow		262
612448				Minimum width overage to be 7/16"	Type ASTM/X or ASTM/X Reflective Sheeting, Pressure Sensitive 48"x50 yds Fluorescent Yellow-Green		261
612048				Minimum width overage to be 7/16*	Type ASTM-X or ASTM-XI Reflective Sheeting, Pressure Sensitive 48"x50 yds Fluorescent Yellow	12	260
		NUED)	TING FILMS (CONTI	IX OR XI SHEE	BID ITEM SECTION V - E.C. & VINYL FILM DEPENDENT TYPE IX OR XI SHEETINGS & TYPE IX OR XI SHEETING FILMS (CONTINUED)		
(DOH USE	3	G d	PRODUCT CODE	REQUIREMENTS	OESCHE IIVN	QTY	NUMBER
IN/ES	TOTAL COST	TSOST TIME	MANIFACTION	CDECIAL	NESCONDIENT NESCON		

					EC 18m Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Yellow		313
518024					EC fim Opaque, Pressure Sensitive, Cast Viny! 24"x50 yds Black	2	312
					EC film Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Natte White		311
					EC film Opaque, Pressure Sensitive, Cast Vinyl 18"x50 yds Blue		310
					EC film Opaque, Pressure Sensitive, Cast Vinyl 15"x50 yds Yeltow		309
					EC film Opaque, Pressure Sensitive, Cast Vinyl 18"x50 yds Black		308
					EC fam Opaque, Pressure Sensitive, Cast Vinyl 18"x50 yds Watte White		307
518125					EC film, Opaque, Pressure Sensitive, Cast Vinyl 1-114"x50 yds Black (Opaque)	<u>-</u>	306
518088					EC film Opaque, Pressure Sensitive, Cast Vinyl 7/8"x50 yds Black (Opaque)		305
518075					Eo film Opaque, Pressure Sensitive, Cast Vinyl 3/4"x50 yds Black (Opaque)		304
518062					EC fan Opeque, Ressure Senstive, Cast Viryl 5/6"x50 yds Black (Opeque)		303
518036					EC fürn Opaque, Pressure Senstive, Cast Vinyl 3/8"X50 yds Black (Opaque)		302
908048					EC firn, Transparent, Pressure Senstive, Acrylic 48'x50 yds. Brown		301
904048					EC fin, Transparent, Pressure Senstive, Acrylic 48'x50 yds. Green		300
905048					EC fan, Transparent, Pressure Senstive, Acrylic 48'x50 yds. Blue		299
					EC film, Trensparent, Pressure Sensitive, Acrylic 48'x50 yds, Red		298
					EC firn, Transparent, Pressure Sensitive, Acrylic 48'x50 yds. Yellow		297
					EC fan, Transparent, Pressure Sanstive, Acrylic 42'x50 yds. Brown		296
904042					EC fen, Transparent, Pressure Senstitve, Acrylic 42'x50 yds. Green		295
					ED film, Transparent, Pressure Sensitive, Acrylic 42'x50 yds. Blue		294
					EC film Transparent, Pressure Sensitive, Acrylic 42'x50 yds. Red		293
					EO film Transparent, Ressure Sensitive, Actylic 42"x50 yds. Yellow		292
906036					EO film Transparent, Pressure Sensitive, Acrylic 36"x50 yds. Brown		291
904036					EO fân Transparent, Pressure Senstitve, Acrylic 36"x50 yds. Green		290
905036					EC fan Transparent Pressure Sensitive, Acrylic 36'x50 yds. Blue		289
					EO fün Transparent, Pressure Senstive, Acrylic 36"x50 yds. Red		288
		INUED)	TING FILMS (CONTI	IX OR XI SHEE	BID ITEM SECTION V • E.C. & VINYL FILM DEPENDENT TYPE IX OR XI SHEETINGS & TYPE IX OR XI SHEETING FILMS (CONTINUED)		
(DOHUSE ONLY)	SI TOTAL COST	ON COST	PRODUCT CODE	REQUIREMENTS	DESCRIPTION	QTY	NUMBER
	1		2000	2000			

330	329	328	327	326	325	324	323	322	321	320	319	318	317	316	315	314		NUMBER
						-				2				2				ESTIMATED YTD
EC film, Opaque, Pressure Sensitive, Cast Vinyl 60"x50 yds 8lue	EC film Opaque, Pressure Sensitive, Cast Viryl 60'x50 yds Yellow	EC film, Opaque, Pressura Sanstitve, Cast Vityl 60"x50 yds Slack	EC film Opaque, Pressure Sensitive, Cast Vityl 60"x50 yds Matte White	EC film Opaque, Pressure Sensitive, Cast Viryl 48"x50 yds Blue	EC film Opaque, Pressure Sanstive, Cast Vinyl 48"x50 yds Yellow	EC film, Opaque, Pressure Senstitve, Cast Vinyl 48"x50 yds Black	EC fan Opaque, Pressure Senstive, Cast Viny! 46"x50 yds Matte White	EC film Opaque, Pressure Senstitive, Cast Vinyl 36"x50 yds Blue	EC film Opaque, Pressure Sensitive, Cast Viry! 36"x50 yds Yellow	EC film, Opaque, Pressure Sensitive, Cast Viryl 35°x50 yds Black	EC film Opaque, Pressure Sensitive, Cast Vtryl 36"x50 yds Matte White	EC film, Opaque, Pressure Sansiève, Cast Vinyl 30"x50 yds Blue	EC film, Opaque, Pressure Sensitive, Cast Vinyl 30"x50 yds Yellow	EC film Opaque, Pressure Senstitve, Cast Vinyl 30"x50 yds Black	EC film Opaque, Pressure Sensitive, Cast Vlnyl 30"x50 yds Matte White	EC fun Opaque, Pressure Sensitive, Cast Vinyl 24"x50 yds Blue	BID ITEM SECTION V - E.C. & VINYL FILM DEPENDENT TYPE IX OR XI SHEETINGS & TYPE IX OR XI	DESCRIPTION
																		SPECIAL REQUIREMENTS
																	SHEETING FILMS (CONTINUED)	MANUFACTURER PRODUCT CODE
																	INUED)	UMT COST
																		TOTAL COST
						518048			512036	518036			512030	518030				INVENTORY SUBCODE (DOH USE ONLY)

	1			1	Т	1	1	1	_	· · · · ·	1.		,	·	7	γ		7	
348	347	346	345	344	343	342	341	340	339	338	337	336	335	334	333	332	331		NUMBER
													N			:			ESTIMATED QTY
36"x50 yds	36"x50 yds	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 30°x50 yds Green	30"x50 yds	24"x50 yds	24"x50 yds	21"x50 yds	21°x50 yds		18"x50 yds	ĺ	Type ASTM/X or ASTM/X Reflective Sheeting, Pressure Sensitive 15"x50 yds. Blue	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Senstitive 12-3/4"x100 yds Fluorescent Yellow-Green (To be used in the labrication of extruded panel signs)	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Senstible 12-3/4"x100 yds. Fluorescent Yellow	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Senstitive 12-3/4"x100 yds Fluorescent Crange	Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Senstitve 12-3/4"x100 yds. Green	Typa ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 12-3/4"x100 yds. Blue	Type ASTM/X or ASTM/XI Reflective Sheeting, Pressure Sensitive, 12-3/4"x100 yds. White	BID ITEM SECTION VI - NON E.C. & VINYL FILM DEPENDENT TYPE IX OR XI SHEETINGS	DESCRIPTION
												in 50 yd rolls □ to +1/16"	tern to be supplied Width tolerance in 50 yd rolls □ to +1/16"	tern to be supplied Width tolerance in 50 yd roks ☐ to +1/16*	tern to be supplied Width tolerance in 50 yd rots C to +1/16"	in 50 yd rolls ☐ to +1/16*	tem to be supplied Width tolerance in 50 yd rolls ☐ to +1/18"	ENDENT TYPE	
Minimum width overage to be 5/16"	Minimum width overage to be 5/16"	Minimum width overage to be 1/2"	Mnimum width	Minimum width	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"	Minimum width	Minimum width overage to be 1/2"	Minimum width overage to be 1/2"			d Width tolerance +0" to +1/16"	Width tolerance +0"	d Width tolerance +0"	d Width tolerance +0" to +1/16"	d Width tolerance +0"	d Width tolerance +0" to +1/16"	IX OR XI SHEE!	SPECIAL REQUIREMENTS
													-		-	_		INGS	MANUFACTURER PRODUCT CODE
																			UNIT COST
																			TOTAL COST
												612412	612012	613012	614012		611012		INVENTORY SUBCODE (DOHUSE ONLY)

NUMBER	ESTIMATED QTY	DESCRIPTION	SPECIAL REQUIREMENTS	MANUFACTURER PRODUCT CODE	UNIT COST	TOTAL COST	INVENTORY SUBCODE
						_	(DOHUSE
		BID ITEM SECTION VI - NON E.C. & VINYL FILM DEPENDENT TYPE IX OR)	I SHEETINGS (C	ONTINUED)			
		Mnimm widt:	Mnimmwidth				
			overage to be				
349		Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 42"x50 yds. Blue	5/16"				
			Minimumwidth				
			overage to be				
350		Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 42"x50 yds. Green	5/16"				
			upp w wmw.uyy				
			overage to be				
351		Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 48"x50 yds Blue	7/16"				
			White watering M				
			overage to be				
352		Type ASTM-IX or ASTM-XI Reflective Sheeting, Pressure Sensitive 45"x50 yds Green	7/16"				

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (**West Virginia Code** §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name:				
Authorized Signature:		Date:		
State of				
County of, to-wit:				
Taken, subscribed, and sworn to before me this	day of		, 20	
My Commission expires	, 20			
AFFIX SEAL HERE	NOTARY PUBLIC			

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1.		preference for the reason checked: ded continuously in West Virginia for four (4) years immediately preced-
	business continuously in West Virginia for four (4) y ownership interest of Bidder is held by another indiv maintained its headquarters or principal place of b preceding the date of this certification; or,	esident vendor and has maintained its headquarters or principal place of vears immediately preceding the date of this certification; or 80% of the vidual, partnership, association or corporation resident vendor who has business continuously in West Virginia for four (4) years immediately
	Bidder is a nonresident vendor which has an affiliate	or subsidiary which employs a minimum of one hundred state residents sipal place of business within West Virginia continuously for the four (4) cation; or ,
2.	Application is made for 2.5% resident vendor problems is a resident vendor who certifies that, during working on the project being bid are residents of Weimmediately preceding submission of this bid; or,	preference for the reason checked: ng the life of the contract, on average at least 75% of the employees est Virginia who have resided in the state continuously for the two years
3.	affiliate or subsidiary which maintains its headqua	num of one hundred state residents or is a nonresident vendor with an arters or principal place of business within West Virginia employing a fies that, during the life of the contract, on average at least 75% of the nployees are residents of West Virginia who have resided in the state
4.	Application is made for 5% resident vendor pro Bidder meets either the requirement of both subdiv	eference for the reason checked: isions (1) and (2) or subdivision (1) and (3) as stated above; or,
5.	Bidder is an individual resident vendor who is a veter	preference who is a veteran for the reason checked: an of the United States armed forces, the reserves or the National Guard r the four years immediately preceding the date on which the bid is
6.	Bidder is a resident vendor who is a veteran of the purposes of producing or distributing the commodition continuously over the entire term of the project, on	preference who is a veteran for the reason checked: United States armed forces, the reserves or the National Guard, if, for ies or completing the project which is the subject of the vendor's bid and average at least seventy-five percent of the vendor's employees are state continuously for the two immediately preceding years.
requirer against	ments for such preference, the Secretary may order	s that a Bidder receiving preference has failed to continue to meet the the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty will be paid to the contracting agency chase order.
authoriz	es the Department of Revenue to disclose to the Dire	any reasonably requested information to the Purchasing Division and ctor of Purchasing appropriate information verifying that Bidder has paid a does not contain the amounts of taxes paid nor any other information
and ac	curate in all respects; and that if a contract is is	Code, §61-5-3), Bidder hereby certifies that this certificate is true ssued to Bidder and if anything contained within this certificate offity the Purchasing Division in writing immediately.
Bidder:		Signed:
Date:		Title:

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.