



LEXINGTON

Lexington-Fayette Urban County Government

Lexington, Kentucky
Horse Capital of the World

Division of Central Purchasing

Date of Issue: September 1, 2020

INVITATION TO BID #94-2020 Traffic Signs

Bid Opening Date: September 16, 2020

Bid Opening Time: 2:00 PM

Address: 200 East Main Street, 3rd Floor, Room 338, Lexington, Kentucky 40507

Type of Bid: Price Contract

Pre Bid Meeting: N/A

Pre Bid Time: N/A

Address: N/A

Sealed bids will be received in the office of the Division of Central Purchasing, 200 East Main Street, Lexington, Kentucky, until **2:00 PM**, prevailing local time on **9/16/2020**. Bids must be received by the above-mentioned date and time. Mailed bids should be sent to:

**Division of Central Purchasing
200 East Main Street, Room 338
Lexington, KY 40507, (859) 258-3320**

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. **Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.** All bids must be signed and have the company name and address, bid invitation number, and the name of the bid on the outside of the envelope.

Bids are to include all shipping, handling and associated fees to the point of delivery located at: Lexington, KY

<input checked="" type="checkbox"/> Bid Specifications Met <u> </u> Exceptions to Bid Specifications. <i>Exceptions shall be itemized and attached to bid proposal submitted.</i>	Proposed Delivery: <u>30</u> days after acceptance of bid.
Procurement Card Usage —The Lexington-Fayette Urban County Government may be using Procurement Cards to purchase goods and services and also to make payments. Will you accept Procurement Cards? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Submitted by: Osburn Associates, Inc.
Firm Name

P.O. Box 912 9383 Vanatta Rd.
Address

Lagan, OH 43138
City, State & Zip

Bid must be signed:  Biddings Agent
(original signature) **Signature of Authorized Company Representative – Title**

Jennifer Treadway
Representative's Name (Typed or printed)

(800) 523-8917 (740) 385-8016
Area Code - Phone – Extension *Fax #*

jennifirt@osburns.com
E-Mail Address

AFFIDAVIT

Comes the Affiant, Jennifer Treadway, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is Jennifer Treadway and he/she is the individual submitting the bid or is the authorized representative of Osburn Associates, Inc. the entity submitting the bid (hereinafter referred to as "Bidder")
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."
7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught. Jennifer Treadway

STATE OF Ohio

COUNTY OF Hocking

The foregoing instrument was subscribed, sworn to and acknowledged before me by Jennifer Treadway on this the 11th day of September, 2020

My Commission expires: 2-12-23



MELINDA THOMPSON
Notary Public, State of Ohio
My Commission Expires
February 12, 2023

Melinda Thompson
NOTARY PUBLIC, STATE AT LARGE

to **Section II. Bid Conditions, Item "U" prior to completing this form.**

I. GREEN PROCUREMENT

A. ENERGY

The Lexington-Fayette Urban County Government is committed to protecting our environment and being fiscally responsible to our citizens.

The Lexington-Fayette Urban County Government mandates the use of Energy Star compliant products if they are available in the marketplace (go to www.Energystar.gov). If these products are available, but not submitted in your pricing, your bid will be rejected as non-compliant.

ENERGY STAR is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

Key Benefits

- These products use 25 to 50% less energy
- Reduced energy costs without compromising quality or performance
- Reduced air pollution because fewer fossil fuels are burned
- Significant return on investment
- Extended product life and decreased maintenance

B. GREEN SEAL CERTIFIED PRODUCTS

The Lexington-Fayette Urban County Government is also committed to using other environmentally friendly products that do not negatively impact our environment. Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education.

Go to www.Greenseal.org to find available certified products. These products will have a reduced impact on the environment and on human health. The products to be used must be pre-approved by the LFUCG prior to commencement of any work in any LFUCG facility. If a Green Seal product is not available, the LFUCG must provide a signed waiver to use an alternate product. Please provide information on the Green Seal products being used with your bid response.

C. GREEN COMMUNITY

The Lexington-Fayette Urban County Government (LFUCG) serves as a principal, along with the University of Kentucky and Fayette County Public Schools, in the Bluegrass Partnership for a Green Community. The Purchasing Team component of the Partnership collaborates on economy of scale purchasing that promotes and enhances environmental initiatives. Specifically, when applicable, each principal is interested in obtaining best value products and/or services which promote environment initiatives via solicitations and awards from the other principals.

If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other principals of the Bluegrass Partnership for a Green Community (i.e. University of Kentucky and Fayette County Schools) if requested?

Yes No

II. Bid Conditions

- A. No bid may be withdrawn for a period of sixty (60) days after the date and time set for opening.
- B. No bid may be altered after the date and time set for opening. In the case of obvious errors, the Division of Central Purchasing may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Central Purchasing.
- C. Acceptance of this proposal shall be enactment of an Ordinance by the Urban County Council.
- D. The bidder agrees that the Urban County Government reserves the right to reject any and all bids for either fiscal or technical reasons, and to award each part of the bid separately or all parts to one vendor.
- E. Minor exceptions may not eliminate the bidder. The decision as to whether any exception is minor shall be entirely that of the head of the requisitioning Department or Division and the Director of the Division of Central Purchasing. The Urban County Government may waive technicalities and informalities where such waiver would best serve the interests of the Urban County Government.
- F. Manufacturer's catalogue numbers, trade names, etc., where shown herein are for descriptive purposes and are to guide the bidder in interpreting the standard of quality, design, and performance desired, and shall not be construed to exclude proposals based on furnishing other types of materials and/or services. However, any substitution or departure proposed by the bidder must be clearly noted and described; otherwise, it will be assumed that the bidder intends to supply items specifically mentioned in this Invitation for Bids.
- G. The Urban County Government may require demonstrations of the materials proposed herein prior to acceptance of this proposal.
- H. Bids must be submitted on this form and must be signed by the bidder or his authorized representative. Unsigned bids will not be considered.
- I. Bids must be submitted prior to the date and time indicated for opening. Bids submitted after this time will not be considered.
- J. All bids mailed must be marked on the face of the envelope:

****At this time, only online bids are being accepted****

"Bid on 94-2020 Traffic Signs"

and addressed to: Division of Central Purchasing
 200 East Main Street, Room 338
 Lexington, Kentucky 40507

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

- K. Bidder is requested to show both unit prices and lot prices. In the event of error, the unit price shall prevail.
- L. A certified check or Bid Bond in the amount of XX percent of the bid price must be attached hereto. This check must be made payable to the Lexington-Fayette Urban County Government, and will be returned when the material and/or services specified herein have been delivered in accordance with specifications. In the event of failure to perform within the time period set forth in this bid, it is agreed the certified check may be cashed and the funds retained by the Lexington-Fayette Urban County Government as liquidated damages. Checks of unsuccessful bidders will be returned when the bid has been awarded.
- M. The delivery dates specified by bidder may be a factor in the determination of the successful bidder.
- N. Tabulations of bids received may be mailed to bidders. Bidders requesting tabulations must enclose a stamped, self-addressed envelope with the bid.
- O. The Lexington-Fayette Urban County Government is exempt from Kentucky Sales Tax and Federal Excise

Tax on materials purchased from this bid invitation. Materials purchased by the bidder for construction projects are not tax exempt and are the sole responsibility of the bidder.

- P. All material furnished hereunder must be in full compliance with OSHA regulations.
- Q. If more than one bid is offered by one party, or by any person or persons representing a party, all such bids shall be rejected.
- R. Signature on the face of this bid by the Bidder or his authorized representative shall be construed as acceptance of and compliance with all terms and conditions contained herein.
- S. The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, religion, sex (including pregnancy, sexual orientation or gender identity), national origin, disability, age, genetic information, political affiliation, or veteran status, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.
- T. The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*
- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

KRS 45.610. Hiring minorities - Information required

- (1) *For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.*
- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*

KRS 45.620. Action against contractor - Hiring of minority contractor or subcontractor

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the*

contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.

- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions above quoted to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

- U. Any party, firm or individual submitting a proposal pursuant to this invitation must be in compliance with the requirements of the Lexington-Fayette Urban County Government regarding taxes and fees before they can be considered for award of this invitation and must maintain a "current" status with regard to those taxes and fees throughout the term of the contract. The contractor must be in compliance with Chapter 13 from the Code of Ordinances of the Lexington-Fayette Urban County Government. The contractor must be in compliance with Ordinance 35-2000 pursuant to contractor registration with the Division of Building Inspection. If applicable, said business must have a Fayette County business license.

Pursuant to KRS 45A.343 and KRS 45A.345, the contractor shall

- (1) *Reveal any final determination of a violation by the contractor within the previous five year period pursuant to KRS Chapters 136 (corporation and utility taxes), 139 (sales and use taxes), 141 (income taxes), 337 (wages and hours), 338 (occupational safety and health of employees), 341 (unemployment and compensation) and 342 (labor and human rights) that apply to the contractor; and*
- (2) *Be in continuous compliance with the above-mentioned KRS provisions that apply to the contractor for the duration of the contract.*

A contractor's failure to reveal the above or to comply with such provisions for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the contractor from eligibility for future contracts for a period of two (2) years.

- V. Vendors who respond to this invitation have the right to file a notice of contention associated with the bid process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.

Notice of contention with the bid process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing, or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the bid process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with bid processes. If, based on this review, a bid process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the

Chief Administrative Officer and the Department of Law as to the appropriate remedy. Notice of appeal of a bid recommendation must be filed within 3 business days of the bid recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

III. Procurement Contract Bid Conditions

- A. The terms of this agreement shall be for 1 year(s) from the date of acceptance of this contract by the Lexington-Fayette Urban County Government. This agreement may be automatically extended for an additional 1 year(s) renewal. This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.
- B. Price Changes **(Space Checked Applies)**
 - (XXX)1. Prices quoted in response to the Invitation shall be firm prices for the first 90 days of the Procurement Contract. After 90 days, prices may be subject to revision and such changes shall be based on general industry changes. Revision may be either increases or decreases and may be requested by either party. There will be no more than one (1) price adjustment per quarter. Requests for price changes shall be received in writing at least twenty (20) days prior to the effective date and are subject to written acceptance before becoming effective. Proof of the validity of a request for revision shall be responsibility of the requesting party. The Lexington-Fayette Urban County Government shall receive the benefit of any decline that the seller shall offer his other accounts.
 - () 2. No provision for price change is made herein. Prices are to be firm for the term of this contract.
 - () 3. See bid specifications.
- C. If any contract item is not available from the vendor, the Lexington-Fayette Urban County Government, at its option, may permit the item to be back-ordered or may procure the item on the open market.
- D. All invoices must bear reference to the Lexington-Fayette Urban County Government Purchasing document numbers which are being billed.
- E. This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.
- F. No substitutions for articles specified herein may be made without prior approval of the Division of Central Purchasing.

EQUAL OPPORTUNITY AGREEMENT

Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states: *The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability.*
- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states: *The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.*

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, veteran status, disability and age.

Signature

Osburn Associates, Inc.
Name of Business


GENERAL PROVISIONS OF BID CONTRACT

By signing the below, bidder acknowledges that it understands and agrees with the following provisions related to its bid response and the provision of any goods or services to LFUCG upon selection by LFUCG pursuant to the bid request:

1. Bidder shall comply with all Federal, State & Local regulations concerning this type of service or good. All applicable state laws, ordinances and resolutions (including but not limited to Section 2-33 (Discrimination due to sexual orientation or gender identity) and Chapter 13 (Licenses and Regulations) of the Lexington-Fayette Urban County Government Code of Ordinances, and Resolution No. 484-17 (Minority, Women, and Veteran-Owned Businesses)) and the regulations of all authorities having jurisdiction over the project shall apply to the contract, and shall be deemed to be incorporated herein by reference.
2. Failure to submit ALL forms and information required by LFUCG may be grounds for disqualification.
3. Addenda: All addenda and IonWave Q&A, if any, must be considered by the bidder in making its response, and such addenda shall be made a part of the requirements of the bid contract. Before submitting a bid response, it is incumbent upon bidder to be informed as to whether any addenda have been issued, and the failure of the bidder to cover any such addenda may result in disqualification of that response.
4. Bid Reservations: LFUCG reserves the right to reject any or all bid responses, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
5. Liability: LFUCG is not responsible for any cost incurred by bidder in the preparation of its response.
6. Changes/Alterations: Bidder may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the bid response, and received by LFUCG prior to the scheduled closing time for receipt of bids, will be accepted. The bid response when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of bid response".
7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from any bidder.
8. Bribery Clause: By his/her signature on its response, bidder certifies that no employee of his/hers, any affiliate or subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.
9. Additional Information: While not necessary, the bidder may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the bid response. Additional documentation shall not serve as a substitute for other documentation which is required by the LFUCG to be submitted with the bid response.
10. Ambiguity, Conflict or other Errors: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the bid request of LFUCG, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
11. Agreement to Bid Terms: In submitting its bid response, the bidder agrees that it has carefully examined the specifications and all provisions relating to LFUCG's bid request, including but not limited to the bid contract. By submission of its bid response, bidder states that it understands the meaning, intent and requirements of LFUCG's bid request and agrees to the same. The successful bidder shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to bidder shall be authorized for services, expenses, or goods reasonably covered under these provisions that the bidder omits from its bid response.
12. Cancellation: LFUCG may unilaterally terminate the bid contract with the selected bidder(s) at any time, with or without cause, by providing at least thirty (30) days advance written notice unless a different advance written notice period is negotiated prior to contract approval. Payment for services or goods received prior to

termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

13. **Assignment of Contract:** The selected bidder(s) shall not assign or subcontract any portion of the bid contract with LFUCG without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
14. **No Waiver:** No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this bid proposal or bid contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
15. **Authority to do Business:** Each bidder must be authorized to do business under the laws of the Commonwealth of Kentucky and must be in good standing and have full legal capacity to provide the goods or services specified in the bid proposal. Each bidder must have all necessary right and lawful authority to submit the bid response and enter into the bid contract for the full term hereof including any necessary corporate or other action authorizing the bidder to submit the bid response and enter into this bid contract. If requested, the bidder will provide LFUCG with a copy of a corporate resolution authorizing this action and/or a letter from an attorney confirming that the proposer is authorized to do business in the Commonwealth of Kentucky. All bid responses must be signed by a duly authorized officer, agent or employee of the bidder.
16. **Governing Law:** This bid request and bid contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this matter, the bidder agrees that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division and that the bidder expressly consents to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to these matters or any rights or obligations arising thereunder.
17. **Ability to Meet Obligations:** Bidder affirmatively states that there are no actions, suits or proceedings of any kind pending against bidder or, to the knowledge of the bidder, threatened against the bidder before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of bidder to perform its obligations under this bid response or bid contract, or which question the legality, validity or enforceability hereof or thereof.
18. **Price Discrepancy:** When applicable, in case of price discrepancy, unit bid price written in words will prevail followed by unit price written in numbers then total amount bid per line item.
19. Bidder understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Bidder is an independent contractor at all times related to the bid response or bid contract.
20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.
21. If any term or provision of this bid contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.


Signature

9/11/2020
Date

WORKFORCE ANALYSIS FORM

Name of Organization: Osburn Associates, Inc.

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Administrators																	
Professionals	2	2															
Superintendents																	
Supervisors																	
Foremen	2	2															
Technicians	40	39	1														
Protective Service																	
Para-Professionals																	
Office/Clerical	2		2														
Skilled Craft	3		3														
Service/Maintenanc																	
Total:	49	43	6														

Prepared by: Jennifer Treadway / Biddings Agent Date: 09 / 11 / 2020
 (Name and Title)

Revised 2015-Dec-15

**DIRECTOR, DIVISION OF CENTRAL PURCHASING
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
200 EAST MAIN STREET
LEXINGTON, KENTUCKY 40507**

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE
EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION**

The Lexington-Fayette Urban County Government has set a goal that not less than ten percent (10%) of the total value of this contract be subcontracted to MBE/WBE's, and set a goal that not less than three percent (3%) of the total value of this contract be subcontracted to Veteran-Owned Small Businesses. The goal for the utilization of Certified MBE/WBE's and Veteran-Owned Small Businesses as subcontractors are recommended goals. Contractors who fail to meet such goals will be expected to provide written explanations to the Director of the Division of Central Purchasing of efforts they have made to accomplish the recommended goals and the extent to which they are successful in accomplishing the recommended goals will be a consideration in the procurement process.

For assistance in locating MBE/WBE Subcontractors contact Sherita Miller at 859/258-3320 or by writing the address listed below:

Sherita Miller, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street – Room 338
Lexington, Kentucky 40507
smiller@lexingtonky.gov

Lexington-Fayette Urban County Government
MWDBE PARTICIPATION GOALS

A. GENERAL

- 1) The LFUCG request all potential contractors to make a concerted effort to include Minority-Owned (MBE), Woman-Owned (WBE), Disadvantaged (DBE) Business Enterprises and Veteran-Owned Small Businesses (VOSB) as subcontractors or suppliers in their bids.
- 2) Toward that end, the LFUCG has established 10% of total procurement costs as a Goal for participation of Minority-Owned, Woman-Owned and Disadvantaged Businesses on this contract.
- 3) **It is therefore a request of each Bidder to include in its bid, the same goal (10%) for MWDBE participation and other requirements as outlined in this section.**
- 4) The LFUCG has also established a 3% of total procurement costs as a Goal for participation for of Veteran-Owned Businesses.
- 5) **It is therefore a request of each Bidder to include in its bid, the same goal (3%) for Veteran-Owned participation and other requirements as outlined in this section.**

B. PROCEDURES

- 1) The successful bidder will be required to report to the LFUCG, the dollar amounts of all payments submitted to Minority-Owned, Woman-Owned or Veteran-Owned subcontractors and suppliers for work done or materials purchased for this contract. (See Subcontractor Monthly Payment Report)
- 2) Replacement of a Minority-Owned, Woman-Owned or Veteran-Owned subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another MWDBE Firm; this is subject to approval by the LFUCG. (See LFUCG MWDBE Substitution Form)
- 3) For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
 - a) The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)
- 4) The LFUCG will make every effort to notify interested MWDBE and Veteran-Owned subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

C. DEFINITIONS

- 1) A Minority-Owned Business Enterprise (MBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage.
- 2) A Woman-Owned Business Enterprise (WBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by one or more women.

- 3) A Disadvantaged Business (DBE) is defined as a business which is certified as being at least 51% owned, managed and controlled by a person(s) that are economically and socially disadvantaged.
- 4) A Veteran-Owned Small Business (VOSB) is defined as a business which is certified as being at least 51% owned, managed and controlled by a veteran and/or a service disabled veteran.
- 5) Good Faith Efforts are efforts that, given all relevant circumstances, a bidder or proposer actively and aggressively seeking to meet the goals, can reasonably be expected to make. In evaluating good faith efforts made toward achieving the goals, whether the bidder or proposer has performed the efforts outlined in the Obligations of Bidder for Good Faith Efforts outlined in this document will be considered, along with any other relevant factors.

D. OBLIGATION OF BIDDER FOR GOOD FAITH EFFORTS

- 1) **The bidder shall make a Good Faith Effort to achieve the Participation Goal for MWDBE and Veteran-Owned subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.**
- 2) Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) The Form of Proposal includes a section entitled "MWDBE Participation Form". The applicable information must be completed and submitted as outlined below:
- 4) **Failure to submit this information as requested may be cause for rejection of bid or delay in contract award.**

E. DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS

- 1) Bidders reaching the Goal are required to submit only the MWDBE Participation Form." The form must be fully completed including names and telephone number of participating MWDBE firm(s); type of work to be performed; estimated value of the contract and value expressed as a percentage of the total Lump Sum Bid Price. The form must be signed and dated, and is to be submitted with the bid.
- 2) Bidders not reaching the Goal must submit the "MWDBE Participation Form", the "Quote Summary Form" and a written statement documenting their Good Faith Effort to do so. If bid includes no MWDBE and/or Veteran participation, bidder shall enter "None" on the subcontractor / supplier form). In addition, the bidder must submit written proof of their Good Faith Efforts to meet the Participation Goal:
 - a. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.
 - b. Included documentation of advertising in the above publications with the bidders good faith efforts package.
 - c. Attended LFUCG Central Purchasing Economic Inclusion Outreach event

- d. Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned businesses of subcontracting opportunities
- e. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses.
- f. Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
- g. Contacted organizations that work with MWDBE companies for assistance in finding certified MWDBE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.
- h. Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs and/or Veteran-Owned businesses soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
- i. Followed up initial solicitations by contacting MWDBEs and Veteran-Owned Businesses to determine their level of interest.
- j. Provided the interested MWDBE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.
- k. Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce
- l. Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.
- m. Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.
- n. Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.
- o. Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding

to satisfy the work requirements of the bid proposal

p. Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

q. Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

Note: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.



MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller, MPA
Minority Business Enterprise Liaison
Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street
Lexington, KY 40507
smiller@lexingtonky.gov
859-258-3323

OUR MISSION: The mission of the Minority Business Enterprise Program is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long term economic viability of Lexington-Fayette Urban County Government.

To that end the city council adopted and implemented Resolution 484-2017 – A Certified Minority, Women and Disadvantaged Business Enterprise ten percent (10%) minimum goal and a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and Certified Service Disabled Veteran – Owned Businesses for government contracts.

The resolution states the following definitions shall be used for the purposes of reaching these goals (a full copy is available in Central Purchasing):

Certified Disadvantaged Business Enterprise (DBE) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a person(s) who is socially and economically disadvantaged as define by 49 CFR subpart 26.

Certified Minority Business Enterprise (MBE) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by an ethnic minority (i.e. African American, Asian American/Pacific Islander, Hispanic Islander, Native American/Native Alaskan Indian) as defined in federal law or regulation as it may be amended from time-to-time.

Certified Women Business Enterprise (WBE) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a woman.

Certified Veteran-Owned Small Business (VOSB) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

Certified Service Disabled Veteran Owned Small Business (SDVOSB) – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a disabled veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

The term “Certified” shall mean the business is appropriately certified, licensed, verified, or validated by an organization or entity recognized by the Division of Purchasing as having the appropriate credentials to make a determination as to the status of the business.

To comply with Resolution 484-2017, prime contractors and minority, women and veteran owned businesses must enroll in the new Diverse Business Management Compliance system, <https://lexingtonky.diversitycompliance.com/>

We have compiled the list below to help you locate certified MBE, WBE and DBE certified businesses. Below is a listing of contacts for LFUCG Certified MWDBEs and Veteran-Owned Small Businesses in <https://lexingtonky.ionwave.net>

Business	Contact	Email Address	Phone
LFUCG	Sherita Miller	smiller@lexingtonky.gov	859-258-3323
Commerce Lexington – Minority Business Development	Tyrone Tyra	ttyra@commercelexington.com	859-226-1625
Tri-State Minority Supplier Diversity Council	Susan Marston	smarston@tsmsdc.com	502-365-9762
Small Business Development Council	Shawn Rogers UK SBDC	shawn.rogers@uky.edu	859-257-7666
Community Ventures Corporation	Phyllis Alcorn	palcorn@cvky.org	859-231-0054
KY Transportation Cabinet (KYTC)	Melvin Bynes	Melvin.bynes2@ky.gov	502-564-3601
KYTC Pre-Qualification	Shella Eagle	Shella.Eagle@ky.gov	502-782-4815
Ohio River Valley Women’s Business Council (WBENC)	Sheila Mixon	smixon@orvwbc.org	513-487-6537
Kentucky MWBE Certification Program	Yvette Smith, Kentucky Finance Cabinet	Yvette.Smith@ky.gov	502-564-8099
National Women Business Owner’s Council (NWBOC)	Janet Harris-Lange	janet@nwbo.org	800-675-5066
Small Business Administration	Robert Coffey	robertcoffey@sba.gov	502-582-5971
LaVoz de Kentucky	Andres Cruz	lavozdeky@yahoo.com	859-621-2106
The Key News Journal	Patrice Muhammad	production@keynewsjournal.com	859-685-8488



* N/A: No subcontractors needed for this project

LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 94-2020 Traffic Signs

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. Failure to submit a completed form may cause rejection of the bid.

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Osburn Associates, Inc.
Company

Jennifer Treadway
Company Representative

9/11/2020
Date

Bidding Agent
Title

* No subcontractors
Needed



LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 94-2020 Traffic Signs

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to Central Purchasing for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWDBE Company, Name, Address, Phone, Email	MBE WBE or DBE	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.				
2.				
3.				
4.				

The undersigned company representative submits the above list of MWDBE firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Osburn Associates, Inc.
Company

9/11/2020
Date

Jennifer Treadway
Company Representative

Biddings Agent
Title



LEXINGTON

** No subcontractors
needed*

LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # 94-2020 Traffic Signs

The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to Central Purchasing for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project. **Failure to submit this form may cause rejection of the bid.**

SUBSTITUTED MWDBE Company Name, Address, Phone, Email	MWDBE Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.					
2.					
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

Osburn Associates, Inc.

Company

9/11/2020

Date

Jennifer Treadway

Company Representative

Bidding Agent

Title



LEXINGTON

** No subcontractors needed*

MWDBE QUOTE SUMMARY FORM

Bid/RFP/Quote Reference # 94-2020 Traffic Signs

The undersigned acknowledges that the minority and/or veteran subcontractors listed on this form did submit a quote to participate on this project. Failure to submit this form may cause rejection of the bid.

Company Name	Contact Person
Address/Phone/Email	Bid Package / Bid Date

MWDBE Company Address	Contact Person	Contact Information (work phone Email, cell)	Date Contacted	Services to be performed	Method of Communication (email, phone meeting, ad, event etc)	Total dollars \$\$ Do Not Leave Blank (Attach Documentation)	MBE * AA HA AS NA Female	Veteran

(MBE designation / AA=African American / HA= Hispanic American/AS = Asian American/Pacific Islander/ NA= Native American)

The undersigned acknowledges that all information is accurate. Any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Osburn Associates, Inc.

Company

9/11/2020

Date

Jennifer Treadway

Company Representative

Bidding Agent

Title



LEXINGTON

** No subcontractors being used*

LFUCG SUBCONTRACTOR MONTHLY PAYMENT REPORT

The LFUCG has a 10% goal plan adopted by city council to increase the participation of minority and women owned businesses in the procurement process. The LFUCG also has a 3% goal plan adopted by cited council to increase the participation of veteran owned businesses in the procurement process. In order to measure that goal LFUCG will track spending with MWDBE and Veteran contractors on a monthly basis. By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentation may result in termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims. Please submit this form monthly to the Division of Central Purchasing/ 200 East Main Street / Room 338 / Lexington, KY 40507.

Bid/RFP/Quote # 94-2020 Traffic Signs

Total Contract Amount Awarded to Prime Contractor for this Project _____

Project Name/ Contract #	Work Period/ From:	To:
Company Name:	Address:	
Federal Tax ID:	Contact Person:	

Subcontractor Vendor ID (name, address, phone, email)	Description of Work	Total Subcontract Amount	% of Total Contract Awarded to Prime for this Project	Total Amount Paid for this Period	Purchase Order number for subcontractor work (please attach PO)	Scheduled Project Start Date	Scheduled Project End Date

By the signature below of an authorized company representative, you certify that the information is correct, and that each of the representations set forth below is true. Any misrepresentations may result in the termination of the contract and/or prosecution under applicable Federal and State laws concerning false statements and false claims.

Osborn Associates, Inc.

Company

9/11/2020

Date

Jennifer Treadway

Company Representative

Bidding Agent

Title

LFUCG STATEMENT OF GOOD FAITH EFFORTS

Bid/RFP/Quote # 94-2020 Traffic Signs

** No subcontractors being used.*

By the signature below of an authorized company representative, we certify that we have utilized the following Good Faith Efforts to obtain the maximum participation by MWDBE and Veteran-Owned business enterprises on the project and can supply the appropriate documentation.

_____ Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow MWDBE firms and Veteran-Owned businesses to participate.

_____ Included documentation of advertising in the above publications with the bidders good faith efforts package

_____ Attended LFUCG Central Purchasing Economic Inclusion Outreach event

_____ Attended pre-bid meetings that were scheduled by LFUCG to inform MWDBEs and/or Veteran-Owned Businesses of subcontracting opportunities

_____ Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and MWDBE firms and Veteran-Owned businesses

_____ Requested a list of MWDBE and/or Veteran subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).

_____ Contacted organizations that work with MWDBE companies for assistance in finding certified MWBDE firms and Veteran-Owned businesses to work on this project. Those contacted and their responses should be a part of the bidder's good faith efforts documentation.

_____ Sent written notices, by certified mail, email or facsimile, to qualified, certified MWDBEs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.

_____ Followed up initial solicitations by contacting MWDBEs and Veteran-Owned businesses to determine their level of interest.

_____ Provided the interested MWBDE firm and/or Veteran-Owned business with adequate and timely information about the plans, specifications, and requirements of the contract.

_____ Selected portions of the work to be performed by MWDBE firms and/or Veteran-Owned businesses in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MWDBE and Veteran participation, even when the prime contractor may otherwise perform these work items with its own workforce

_____ Negotiated in good faith with interested MWDBE firms and Veteran-Owned businesses not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.

_____ Included documentation of quotations received from interested MWDBE firms and Veteran-Owned businesses which were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.

_____ Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a MWDBE and/or Veteran-Owned business's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy MWDBE and Veteran goals.

_____ Made an effort to offer assistance to or refer interested MWDBE firms and Veteran-Owned businesses to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal

_____ Made efforts to expand the search for MWBE firms and Veteran-Owned businesses beyond the usual geographic boundaries.

_____ Other--any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include MWDBE and Veteran participation.

NOTE: Failure to submit any of the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to approval by the MBE Liaison. Documentation of Good Faith Efforts must be submitted with the Bid, if the participation Goal is not met.

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

Osborn Associates, Inc.
Company

9/11/2020
Date

Jennifer Treadway
Company Representative

Bidding Agent
Title



To Whom It May Concern:

Osburn Associates, Inc. is the manufacturer of the materials for this bid pricing. As the manufacturer, there is no need for sub contractors/ minority companies to be involved.

We do have a commitment to hire minority employees when they have applied. We do use temporary staffing agencies for help in finding minorities.

Bid 94-2020 Traffic Signs Specifications

GENERAL SPECIFICATIONS: SHEETING AND FACES USED ON COMPLETED SIGNS

This specification covers flexible white or colored, wide-angle retroreflective sheeting, tape and related materials designed to enhance nighttime visibility of traffic control signage and objects. As defined in ASTM D4956-01, (Standard Specifications for Retroreflective Sheeting for Traffic Control) classifications included in this bid shall be:

Type I – a medium-intensity retroreflective sheeting referred to as “engineering grade” and typically enclosed lens glass-bead sheeting;

Type III – a high-intensity retroreflective sheeting that is typically encapsulated glass-bead retroreflective material; includes prismatic

Type VI – an elastomeric high-intensity retroreflective sheeting that is typically a vinyl microprismatic retroreflective material as used for cone collars, roll up signs;

Type IX – a very-high-intensity retroreflective sheeting having highest retroreflectivity characteristics at short road distance as determined by ASTM D4956-01, Table 3. This sheeting is typically an unmetallized microprismatic retroreflective element material. Referred to as “diamond grade”.

Color Specifications:

Color determinations and specifications of all retroreflective signing material shall conform to the requirements of Federal Highway color tolerance charts for both daytime and nighttime specifications as defined by FHWA, Department of Transportation in Title 23-Code of Federal Regulations-Part 655-Subpart F, as amended (effective August 30, 2002 or any later revisions thereof).

Performance History:

Sheeting manufacturer shall provide test data showing that representative combined production material including sheeting, process inks and overlays films of the type to be supplied has meet the requirements for 36 months of accelerated outdoor weathering. The retroreflective surface of the sheeting shall be weather resistant and show no appreciable cracking, blistering, crazing or dimensional change as conducted according to ASTM G7 standards. (3 year NTPEP tested – ASTM D4956-01)

Warranties:

Warranties shall be for a minimum of:

Type I – six (6) years Type III – ten (10) years

Type VI – three (3) years Type IX – twelve (12) years

The warranty must be from the major component manufacturer of the sheeting material. Failure of any part of the “sign system” for its intended use, during the warranty period will require replacement by the manufacturer as defined under their stated warranty conditions. Including but not limited to the specified coefficient of retroreflectivity time frame as listed in ASTM D4956-01.

Film Overlays:

All overlays included in this bid shall be of the same type as awarded to the manufacture of the sheeting in order to comply with the warranty that shall be implied or stated with the sheeting material so as not to lessen any warranty terms. (i.e. Part of a family of matched component products)

FINISHED MATERIAL:

All sheeting supplied shall be of good appearance, free of ragged edges, cracks and extraneous materials.

GENERAL SPECIFICATIONS, SIGN BLANKS: All sign blanks in this bid shall be fabricated from .080, .100 or 0.125 inch aluminum as specified. All corners shall be rounded as to conform to borders as outlined in the "Standard Highway Signs Manual, 2002". All blanks shall be perforated for standard mounting with 3/8-inch holes. They shall be free of surface blemishes or other defects that could affect serviceability of the finished product. They shall be cleaned of dirt, grease, oil, etc. preparatory to the application of coatings by methods that are in accordance with recognized good commercial practice.

FABRICATION OF SIGN BLANKS: All fabrication, including cutting, shearing and drilling/punching of holes, shall be done prior to shipping. The sign shall be free from windtwist or buckle and shall be essentially a plane surface. Overall dimensions and mounting hole locations shall not vary more than 1/8-inch from the dimensions specified herein and/or as stated in the "Standard Highway Signs Manual, 2002" and/or specified in the "MUTCD, 2003" or any later revision thereof of either manual.

MOUNTING:

The following complete and sign blanks shall be perforated for Vertical and Horizontal mounting:
12" x 36" 18" x 24" 18" x 48" 24"x30"

The following complete and sign blanks shall be perforated for Horizontal and Diamond mounting:
24" x 24" 30" x 30" 36" x 36" 48" x 48"

All other sign blanks and complete signs shall be perforated as stated in the "MUTCD, 2003", and/or the "Standard Highway Signs Manual, 2002, or any later revisions thereof.

FINISHED SIGN: The finished sign shall show careful workmanship and have a smooth and uniform face surface. The sign shall be clean cut and sharp. Signs shall be packed in such a manner as to insure their arrival at the destination in an undamaged condition.

TESTING: The supplier is responsible for the performance of all inspection requirements and by letter attached to the bid must state that all requirements are/or will be met. The supplier may be required, (at any time and at his own expense), to submit test certification and test data from an independent commercial laboratory indicating compliance and performance on all specifications.

CERTIFICATIONS:

All bids submitted must certify that all products meet the requirements of the specifications of the bid and that all sheeting meets or exceeds all parts of the "Standard Specification for Retroreflective Sheeting for Traffic Control" (ASTM D4956-01) and/or later revisions or additions thereof.

OPTIONS:

The Lexington-Fayette Urban County Government, Division of Traffic Engineering reserves the right to reject or accept all or any part of any bid, to award the bid solely as it deems to be in the best interest of the government.

1. Completed Signs on Aluminum panels:

1a. <u>Standard High Intensity Reflective Traffic Signs</u>	<i>* Quoting Avery Dennison T-6500 (HIP)</i>
	Price per sign
R1-1, Stop, 18-inch	<u>7.98</u>
R1-1, Stop, 24-inch	<u>14.08</u>
R1-1, Stop, 30-inch	<u>22.00</u>
R1-1, Stop, 36-inch	<u>32.00</u>
R1-1, Stop, 48-inch	<u>56.88</u>
R1-2, Yield, 30-inch	<u>14.55</u>
R1-2, Yield, 36-inch	<u>27.16</u>
R1-2, Yield, 48-inch	<u>46.56</u>
R1-3P, All Way, 18" x 6"	<u>2.91</u>

All MUTCD Standard Signs, 12" x 6"	<u>1.94</u>
All MUTCD Standard Signs, 12" x 24"	<u>7.76</u>
All MUTCD Standard Signs, 18" x 6"	<u>2.91</u>
All MUTCD Standard Signs, 18" x 18"	<u>8.73</u>
All MUTCD Standard Signs, 18" x 24"	<u>11.64</u>
All MUTCD Standard Signs, 24" x 24"	<u>15.52</u>
All MUTCD Standard Signs, 24" x 30"	<u>19.40</u>
All MUTCD Standard Signs, 12" x 36"	<u>11.64</u>
All MUTCD Standard Signs, 24" x 36"	<u>23.28</u>
All MUTCD Standard Signs, 30" x 36"	<u>29.10</u>
All MUTCD Standard Signs, 30" x 30"	<u>24.25</u>
All MUTCD Standard Signs, 36" x 36"	<u>34.92</u>
All MUTCD Standard Signs, 24" x 18"	<u>11.64</u>
All MUTCD Standard Signs, 48" x 24"	<u>31.04</u>
LFUCG LF-13, "LEX. SL25, Unless Posted Otherwise" Signs, 24" x 36"	<u>23.28</u>

1b. Diamond Grade Fluorescent Yellow/Green (3963-LDP/3983-VIP) Price per sign

S1-1 School Advance – 30" Pentagon	<u>31.56</u>
S1-1 School Advance – 36" Pentagon	<u>45.45</u>
S2-1 School Crossing – 30" Pentagon	<u>31.56</u>
S2-1 School Crossing – 36" Pentagon	<u>45.45</u>
W11-1 Bicycle Symbol – 30' x 30"	<u>31.56</u>
W11-1 Bicycle Symbol – 36" x 36"	<u>45.45</u>
W11-2 Pedestrian Advance – 30" x 30"	<u>31.56</u>
W11-2 Pedestrian Advance – 36" x 36"	<u>45.45</u>
W11A-2 Pedestrian Crossing – 30" x 30"	<u>31.56</u>
W11A-2 Pedestrian Crossing – 36" x 36"	<u>45.45</u>
W15-1A, Playground Symbol 30" x 30"	<u>31.56</u>
W11-15 Ped/Bike Combo 30" x 30"	<u>31.56</u>
W11-15 Ped/Bike Combo 36" x 36"	<u>45.45</u>
W16-7P, Downward Arrow 24" x 12"	<u>10.10</u>
LFUCG S5-1, "School, SL25 When Children Are Present" Signs 24" x 48"	<u>40.40</u>
** (LFUCG – Custom Sign)	

* Avery T-7513

1c. Diamond Grade Fluorescent Yellow (3981 VIP) Price per sign

OM-3L, Object Marker 12" x 36"	<u>15.15</u>
OM-3R, Object Marker 12" x 36"	<u>15.15</u>
All MUTCD Standard Warning Signs 30"	<u>31.56</u>
All MUTCD Standard Warning Signs 36"	<u>45.45</u>
All MUTCD Standard Warning Signs, 24" x 12"	<u>10.10</u>
All MUTCD Standard Warning Signs, 24" x 18"	<u>15.15</u>
All MUTCD Standard Warning Signs, 48" x 24"	<u>40.40</u>

* Avery T-7511

1d. L.F.U.C.G. Engineer Grade Completed Signs: Price per sign

LFUCG R7-6 A, NP/6-4/LZ/CV/30/No Arrow 12" x 18"	<u>5.67</u>
LFUCG R7-6 AD, NP/6-4/LZ/CV/30/← → 12" x 18"	<u>5.67</u>
LFUCG R7-6 AL, NP/6-4-LZ/CV/30/← 12" x 18"	<u>5.67</u>
LFUCG R7-6 AR, NP/6-4/LZ/CV/30/→ 12" x 18"	<u>5.67</u>
LFUCG R7-8, Reserved Parking, (HDCP Logo) 12" x 18"	<u>5.67</u>
LFUCG R7-8a, Van Accessible 9" x 12"	<u>2.84</u>
LFUCG R7-31, NP Symbol (Rest blank) 12" x 18"	<u>5.67</u>
LFUCG R7-31 A, NPAT Symbol/ANY TIME/No Arrow 12" x 18"	<u>5.67</u>
LFUCG R7-31 AD, NPAT Symbol/ANY TIME/← → 12" x 18"	<u>5.67</u>
LFUCG R7-31 AL, NPAT Symbol/ANY TIME/← 12" x 18"	<u>5.67</u>

* Avery T-1500

LFUCG R7-31 AR, NPAT Symbol/ANY TIME/ →	12" x 18"	<u>5.67</u>
LFUCG R7-32, No Parking Legend (Rest blank)	12" x 18"	<u>5.67</u>
LFUCG R7-33 AD, NPAT Symbol/ANY TIME/←→/TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R7-33 AL, NPAT Symbol/ANY TIME/← /TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R7-33 AR, NPAT Symbol/ANY TIME →/TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R7-34 AD, NP/STAND/ANY TIME/← →/TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R7-34 AL, NP/STAND/ANY TIME/← /TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R7-34 AR, NP/STAND/ANY TIME/ →/TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R8-31 AD, NP/FIRE LANE/← →/TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R8-31 AL, NP/FIRE LANE/← /TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG R8-31 AR, NP/FIRE LANE/ →/TOW ZONE	12" x 18"	<u>5.67</u>
LFUCG LF-01, "NO PARK, UK FOOTBALL GAME"	12" x 18"	<u>5.67</u>
1e. <u>L.F.U.C.G. Hi Intensity Grade Completed Signs:</u> * <i>Avery T-6500</i>		
LFUCG LF-02A, "SNOW EMERGENCY ROUTE" Signs With Snow Flake (Blue, Red, White)	18" x 24"	<u>14.25</u>
LFUCG LF-03, "\$500 FINE FOR LITTERING" Signs	18" x 24"	<u>14.25</u>
LFUCG LF-13, " <u>LEX. SL25, Unless Posted Otherwise</u> " Signs	24" x 36"	<u>28.50</u>

2. Sign Blanks, Aluminum, Flat, as per above.

	<u>Price per sign</u>
12" x 6"	<u>1.18</u>
12" x 9"	<u>1.76</u>
12" x 12"	<u>2.35</u>
12" x 18"	<u>3.53</u>
12" x 24"	<u>4.70</u>
15" x 21"	<u>5.12</u>
18" x 6"	<u>1.76</u>
18" x 18"	<u>5.29</u>
18" x 48" (vertical)	<u>14.10</u>
18" x 24"	<u>7.05</u>
24" x 6"	<u>2.35</u>
24" x 8"	<u>3.13</u>
24" x 9"	<u>3.53</u>
24" x 10"	<u>3.92</u>
24" x 24"	<u>9.40</u>
24" x 30"	<u>11.75</u>
24" x 36"	<u>14.10</u>
24" x 42"	<u>16.45</u>
24" x 48" (0.125 gauge only)	<u>29.60</u>
30" x 9"	<u>4.41</u>
30" x 12"	<u>5.88</u>
30" x 18"	<u>8.81</u>
30" x 30"	<u>14.69</u>
30" x 36"	<u>17.63</u>
36" x 9"	<u>5.29</u>
36" x 12"	<u>7.05</u>
36" x 18"	<u>10.58</u>
36" x 36"	<u>21.15</u>
42" x 9"	<u>6.16</u>

42" x 12"	<u>8.23</u>
42" x 18"	<u>12.34</u>
48" x 9"	<u>7.05</u>
48" x 12"	<u>9.40</u>
48" x 18" (horizontal)	<u>14.10</u>
48" x 24" (0.125 gauge only)	<u>29.60</u>
48" x 30" (0.125 gauge only)	<u>37.00</u>
48" x 36" (0.125 gauge only)	<u>44.40</u>
48" x 48" (0.125 gauge only)	<u>59.20</u>
48" x 60" (0.125 gauge only)	<u>74.00</u>
48" x 96" (0.125 gauge only)	<u>118.40</u>
54" x 9"	<u>7.92</u>
54" x 12"	<u>10.58</u>
54" x 18"	<u>15.86</u>
60" x 9"	<u>8.81</u>
60" x 12"	<u>11.75</u>
60" x 18"	<u>17.63</u>
60" x 24" (0.125 gauge only)	<u>37.00</u>
60" x 30" (0.125 gauge only)	<u>46.25</u>
66" x 9"	<u>9.69</u>
66" x 12"	<u>12.93</u>
66" x 18"	<u>19.39</u>
66" x 24" (0.125 gauge only)	<u>40.70</u>
66" x 30" (0.125 gauge only)	<u>50.88</u>
72" x 9"	<u>10.58</u>
72" x 12"	<u>14.10</u>
72" x 18"	<u>21.15</u>
72" x 24" (0.125 gauge only)	<u>44.40</u>
72" x 30" (0.125 gauge only)	<u>55.50</u>
30" Circle (for RXR)	<u>14.69</u>
36" Circle (for RXR)	<u>21.15</u>
30" Pentagon (for School)	<u>14.69</u>
36" Pentagon (for School)	<u>21.15</u>
30" Octagon (for Stop)	<u>14.69</u>
36" Octagon (for Stop)	<u>21.15</u>

DELIVERY:

All quoted prices shall include delivered price. All orders shall be delivered within 15-30 days or order may be cancelled and voided. Delivery times in excess of these are grounds for disqualifications and/or cancellation of this contract.

1 – copied from the Annual Book of ASTM Standards, American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428.
 2 – 3M Corporation part numbers are used for clarity and understanding.

Radar Speed Feedback Sign Assembly Specification – Low Speed Application

General Description: Radar sign suitable for use on residential type streets should be easily read at speeds up to 35mph with a variety of mounting options. The radar unit should accurately measure vehicular speeds approaching the sign and display the speed accordingly. The unit must have the ability to 'flash' at speeds above a certain threshold that can be adjusted. The unit must be solar powered with the ability to operate in all types of weather.

Minimum Specifications:

- Dimensions:** Sign – 29”h x 23”w x 3.5”t
Speed Digits – 11”h x 5.6”w
Weight – Up to 70 lbs including brackets, solar panel, and batteries
- Technical:** Display in miles per hour
Display should be able to 'flash' the speed or 'strobe' when speeds are too high.
Standard aluminum sign face and enclosure
MUTCD approved White prismatic sheeting with Black "Your Speed"
Solar Powered with panel sized according to mfg specification. Min. 40 watt
Radar – Doppler or equivalent with a range up to 300 feet
Brightness – Adjusts according to ambient light with the ability to adjust if needed.
Maximum (11,000 nits), minimum (550 nits).
Enclosure – Waterproof aluminum meeting NEMA rx-12, IP65 requirements.
Communication – Standard serial connection and Bluetooth option or Wi-fi.
When fully charged, batteries should be able to power the unit for at least two (2) weeks in total darkness with up to 4,000 actuations per day.
- Programming:** User-friendly interface with ability to adjust brightness, display modes (none, minimum, maximum, flashing speed, and strobe).
- Data Collection:** Unit must be able to collect and report count and speed data with a variety of report options such as summary, weekly, total count, average speed, 85% speed, minimum and maximum speeds, and speed violators. Files created must be readable and exportable to MS Excel.
- Mounting:** Universal mounting bracket for installation on circular, square, telespar, and utility poles is required. Bracket must be theft resistant.
- Warranty:** Two years for the radar sign
One year for batteries/solar unit.

\$ 4,800.00 each

General Specifications for Model #ER12-P-DC599

12" Character Pole Mounted Radar Speed Monitor

Display Frame

- Length: 18 3/4
- Height: 13 3/4
- Depth: 4 1/4
- Open Front skin: constructed of .063 aluminum
- Back skin: constructed of .063 aluminum
- Viewing Window: .125 thick polycarbonate with UV matte finish
- Paint: Powder paint, flat black
- Salt spray fog: 1,000 hours
- UV Resistance: 500 hours

Display Module 16 x 11

Optical:

- Pixels are arranged in a 2 digit, (7) seven segment array.
- LED pixel spacing is .70 inches x .70 inches
- 15 degree viewing angle

Photocell Assembly (built-in)

- Monitors ambient light conditions and adjusts brightness accordingly

Standard Violation Alerts

- Characters flash when over preset threshold &/or built-in face white strobe
- Display will go blank when over preset threshold

Solid State Regulator

Electrical Specifications:

- Voltage: 12V
- Rated Solar Input: 10A
- Rated Load Current: 10A
- Equalization Voltage: 14.8V
- Boost Battery: 14.4V
- Float Battery: 13.6V
- Low Voltage Disconnect: 11.1V
- Low Voltage Reconnect: 13.1V
- Self-Consumption: 6 mA
- Operating Temp. -35 to +55oC

Radar

- Operating Band K-Band
- Frequency 24.125 GHz \pm 5Mhz
- Power Output 5mW
- Beam angle 38 x 45
- Polarization Linear
- Supply Voltage 5.5V DC to 16V DC (18VDC max)
- Nominal Current Draw 9.5 mA
- Operating Temp. -40 F to +185 F (-40 C to +85 C)
- Accuracy \pm 0.1 mph
- Speed Range 5 mph to 99 (8 kmph to 158.4 kmph)
- Detection Range Typically 300+ feet (90+ meters)te
- LED's: (25) yellow/amber Par 46 LED's
- Visor: 360 degree plastic high impact

Options

- ▶ KPH
- ▶ Traffic Stats
- ▶ Round Aluminum Pole kit 11 -20
- ▶ Battery
- ▶ Bluetooth
- ▶ Solar Kit
- ▶ Static Signage



888.414.3003 toll-free • 662.566.7123 fax
www.k-systems.com • sales@k-systems.com



K&K Systems, Inc.
687 Palmetto Road
Tupelo, MS 38801

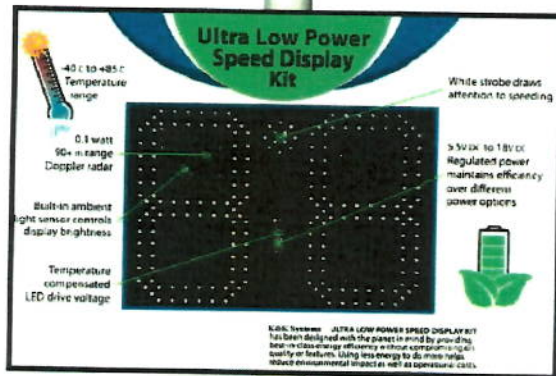
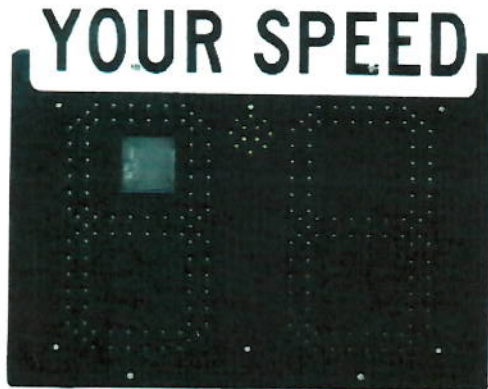
Tel: 888-414-3003
Fax: 662-566-7123
Web: www.k-ksystems.com
Email: info@k-ksystems.com

MANUFACTURER'S STANDARD WARRANTY

1. The manufacturer warrants that all products manufactured by K & K Systems, Inc. will be free from defects in material and workmanship for a period of two (2) years from date of shipment, subject to the conditions and restrictions contained herein.
2. This warranty does not apply to a product that has not been installed or maintained in accordance with the manufacturer's instructions, has been subjected to damage in an accident, abused or neglected during operation, repaired or modified by persons other than manufacturer, its employees or authorized agents, or failed to have normal maintenance.
3. The buyer expressly agrees that the buyer's sole remedy and the manufacturer's sole responsibility, in respect to a warranty claim, is exclusively limited to repair or replacement at the manufacturer's option, of product or a portion thereof found by the manufacturer to be defective. The manufacturer is not responsible for labor or other expended charges by buyer including transportation charges, and shall not be liable for any incidental or consequential damages connected with repair of a product deemed to be defective or with installation or replacement of repaired product. Further, the manufacturer disclaims any liability for any incidental or consequential damages, including lost or duplicated time or expense accruing for any reason, to the owner or user of any products sold by the manufacturer, whether claim is made in contract or in tort or under any theory of warranty, negligence or otherwise.
4. The manufacturer reserves the right to make changes in its products from time to time, without incurring any obligation to incorporate such improvements in any products previously sold or in service.
5. The terms and conditions of the warranty cannot be altered without the written consent of the manufacturer.
6. The foregoing warranty is exclusive and in lieu of all other express, statutory and implied warranties **INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.** There are no warranties which extend beyond the language in the previous six (6) paragraphs.

If you have any further questions, please feel free to call us at our toll-free number of 888-414-3003, email info@k-ksystems.com or you might want to look us up on the Internet at www.k-ksystems.com.

Pole Mounted Radar Speed Monitor Model #ER12-P-DC599



Features

- ▶ 12" LED Display
- ▶ Easily Adapt to Existing Pole or One of Our Optional Poles
- ▶ Radar is FCC pre-approved with CE mark for worldwide deployment
- ▶ Lowest power industry standard radar for speed measurement
- ▶ All LED Display
- ▶ Available in 24.125GHz and 24.200GHz
- ▶ All Aluminum Display Enclosure
- ▶ Powder Coat Paint
- ▶ Built in White Violator Strobe
- ▶ Front Serviceable
- ▶ Over Speed Flashing Violator Alert
- ▶ Over Speed Blanking Violator Alert
- ▶ KPH Option available

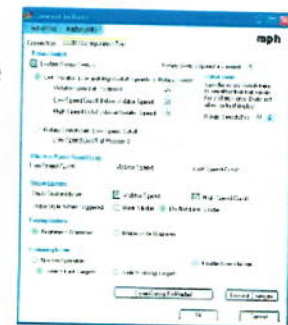


Solar-Powered Technology Option

With K&K Systems optional Solar feature you no longer need to trench or bore electricity to your radar display. No more Power Bill! K&K solar panels utilize the most up-to-date solar technology and electronics to maintain power levels through rain, sleet, heavy snow or strong winds. No charging required. The solar panel continuously charges the unit while it is in operation.

CPU Controller Software

With K&K Systems' Laptop software you will be able to configure your violator alerts and other settings.



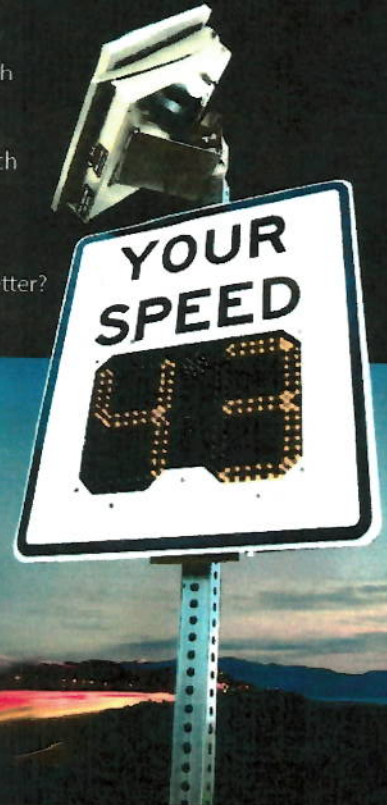


RADAR SPEED MONITOR WRAP AROUND DESIGN POLE MOUNT

The new Wrap Around ESPS Series Pole Mounted Radar is engineered to be lightweight and durable. The sign and radar combination are just over 2" in depth making it lightweight and easy to manage when installing. Additionally, only 2 bolts are required to mount onto a square or u-channel post. We recessed the display into an aluminum sign for strength. The matte black front reduces glare. The efficient use of LEDs and reinforced Lexan face reduces exposure to damage.

With K&K Systems Quick Selection Switch you are able to change your *over speed violator alert* speed and the *blinking violator alert* without need of a CPU which allows the field workers to simply push the button to desired speed threshold.

Light, efficient, simple. What could be better?



Ultra Low Power Speed Display Kit

401 to 403: Temperature range

0.1 watt 900 mhz range Doppler radar

Built-in ambient light sensor controls display brightness

Temperature compensated LED drive voltage

When strobe shows, attention to speeding

5.5V DC, 100 mA DC Regulated power maintains efficiency over different power options

K&K Systems' ULTRA LOW POWER SPEED DISPLAY KIT has been designed with the lowest power consumption in the industry. It is designed to be used in areas with limited power supply. It is designed to be used in areas with limited power supply. It is designed to be used in areas with limited power supply.

FEATURES

- ▶ 12" LED Display
- ▶ Easily Adapt to Existing Pole or One of Our Optional Poles
- ▶ Radar is FCC pre-approved with CE mark for worldwide deployment
- ▶ Lowest power industry standard radar for speed measurement
- ▶ All LED Display
- ▶ Available in 24.125GHz and 24.200GHz
- ▶ All Aluminum Display Enclosure
- ▶ Powder Coat Paint
- ▶ Built in White Violator Strobe
- ▶ Front Serviceable
- ▶ Over Speed Flashing Violator Alert
- ▶ Over Speed Blinking Violator Alert
- ▶ KPH Option available

RADAR SPEED MONITOR WRAP AROUND DESIGN POLE MOUNT

Solar-Powered Technology

K&K solar panels utilize the most up-to-date solar technology and electronics to maintain power levels through rain, sleet, heavy snow or strong winds. No charging required. The solar panel continuously charges the unit while it is in operation. With K&K Systems optional solar feature you we no longer need to trench or bore electricity to your radar display. No more power bill!

Lightweight and Easy Installation

- ▶ Easily Adapt to Existing Pole or One of Our Optional Poles
- ▶ Lightweight Design - Just over 2" in depth
- ▶ All Aluminum Display Enclosure
- ▶ Built in White Violator Strobe
- ▶ Powder Coat Paint
- ▶ 12" All LED Display

CPU Controller Software

K&K Systems' Laptop software allows you to configure your violator alerts and other settings from virtually anywhere.



Display Module 16 x 11

Optical:

- Pixels are arranged in a 2 digit, (7) seven segment array.
- LED pixel spacing is .70 inches x .70 inches
- 15 degree viewing angle

Photocell Assembly (built-in)

- Monitors ambient light conditions and adjusts brightness accordingly

Standard Violation Alerts

- Characters flash when over preset threshold &/ or built-in face white strobe
- Display will go blank when over preset threshold

Radar

- Operating Band K-Band
- Frequency 24.125 GHz \pm 5Mhz
- Power Output 5mW
- Beam angle 38 x 45
- Polarization Linear
- Supply Voltage 5.5V DC to 16V DC (18VDC max)
- Nominal Current Draw 9.5 mA
- Operating Temp. -40 F to +185 F (-40 C to +85 C)
- Accuracy \pm 0.1 mph
- Speed Range 5 mph to 99 (8 kmph to 158.4 kph)
- Detection Range Typically 300+ feet (90+ meters)
- LED's: (25) yellow/amber Par 46 LED's
- Visor: 360 degree plastic high impact

Solid State Regulator

Electrical Specifications:

- Voltage: 12V
- Rated Solar Input: 10A
- Rated Load Current: 10A
- Equalization Voltage: 14.8V
- Boost Battery: 14.4V
- Float Battery: 13.6V
- Low Voltage Disconnect: 11.1V
- Low Voltage Reconnect: 13.1V
- Self-Consumption: 6 mA
- Operating Temp. -35 to +55oC

Options

- ▶ KPH
- ▶ Traffic Stats
- ▶ Round Aluminum Pole kit 11 -20
- ▶ Battery
- ▶ Bluetooth
- ▶ Solar Kit
- ▶ Static Signage



888.414.3003 toll-free • 662.566.2025 phone • 662.566.7123 fax
www.k-systems.com • sales@k-systems.com



Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Avery Dennison® T-1000 & W-1000 Series Beaded Engineering Grade Retroreflective Film for permanent and temporary traffic signage, is a high-quality, durable, enclosed lens retroreflective material with a pressure sensitive adhesive.

T-1000 & W-1000 Series sheeting is an Omni-Directional beaded film. This feature benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.



Performance:
ASTM D4956 Type I,
EN-12899 RA1
See Page 2 for complete list.



Orientation: Omni-Directional



Durability: 7 years
Vertical Exposure Only



Face: High-Gloss Urethane
with Glass Microspheres
(D-version: High Gloss PVC)



Adhesive: Permanent
Pressure Sensitive



Liner: White Polyethelene
Coated Paper StaFlat®

Features:

- Omni-Directional
- Field proven long term durability on safety devices worldwide
- Pattern free face allows for clean graphic imaging
- Economical choice for non-critical signs
- Uniform daytime and nighttime visual appearance

Conversion:

- Screen Printing
- Thermal Transfer Printing
- Solvent Based Inkjet Printing
- Mild/Eco Solvent Inkjet Printing
- UV Inkjet Printing
- Thermal Die-Cut
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Sign-Cut

Applications:

- Rigid Permanent and Temporary Outdoor Signage
- Rigid Work Zone Devices
- Nonessential Signage where Retroreflection is Necessary

Product Data Sheet
Page 1 of 7
Reflective Solutions
7542 North Natchez Ave.
Niles, IL 60714

Product Availability*:

Traffic Products		
T-1100	White	
T-1101	Yellow	
T-1500	White	
T-1500-D	White (Matan)	
T-1501	Yellow	
T-1501-D	Yellow (Matan)	
T-1505	Blue	
T-1507	Green	
T-1508	Red	
T-1509	Brown	
Work Zone Products**		
W-1104	Orange	
W-1204		
W-1504		
W-1142	Orange	4" Left
W-1143	Pre-Striped	4" Right
W-1144		6" Left
W-1145	Barricade	6" Right

*See Page 5 for Nomenclature.

**3 Year Durability



www.reflectives.averydennison.com

Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Retroreflectivity:

Table A:
Min. coefficients of retroreflection (R_A)¹ per ASTM D4956² Type I

Observation Angle	Color	Entrance Angle	
		- 4°	+ 30°
0.2°	White	70	30
	Yellow	50	22
	Orange	25	7
	Blue	4	1.7
	Green	9	3.5
	Red	14	6
	Brown	1.0	0.3
0.5°	White	30	15
	Yellow	25	13
	Orange	13	4
	Blue	2.0	0.8
	Green	4.5	2.2
	Red	7.5	3.0
	Brown	0.3	0.2

Table B:
Min. coefficients of retroreflection (R_A)¹ EN 12988 Table 3

α Observation Angle	Color	β_1 ($\beta_2=0^\circ$) Entrance Angle		
		+ 5°	+ 30°	+ 40°
12' (0.2°)	White	70	30	10
	Yellow	50	22	7
	Orange	25	10	2.2
	Blue	4	1.7	0.5
	Green	9	3.5	1.5
	Red	14.5	6	2
	Brown	1	0.3	--
20' (0.33°)	White	50	24	9
	Yellow	35	16	6
	Orange	20	8	2.2
	Blue	2	1	--
	Green	7	3	1.2
	Red	10	4	1.8
	Brown	0.6	0.2	--
2°	White	5	2.5	1.5
	Yellow	3	1.5	1.0
	Orange	1.2	0.5	--
	Blue	--	--	--
	Green	0.5	0.3	0.2
	Red	1	0.5	0.5
	Brown	--	--	--

T-1000 & W-1000 Series **exceeds** all values listed in **Table A** and **Table B**.

T-1000 & W-1000 Series also **exceeds** the current applicable requirements for the following specifications:

ASTM D4956	International
EN-12899	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135334	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 10 033	Argentina

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

¹ R_A =
candelas per foot-candle per
square foot (cd/ft²) OR
Candelas per lux per square meter
(cd/lx/m²)

² Measured according to ASTM E810

Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Colors and Specification Limits:

Figure A: Daytime Color – CIE Color Diagram

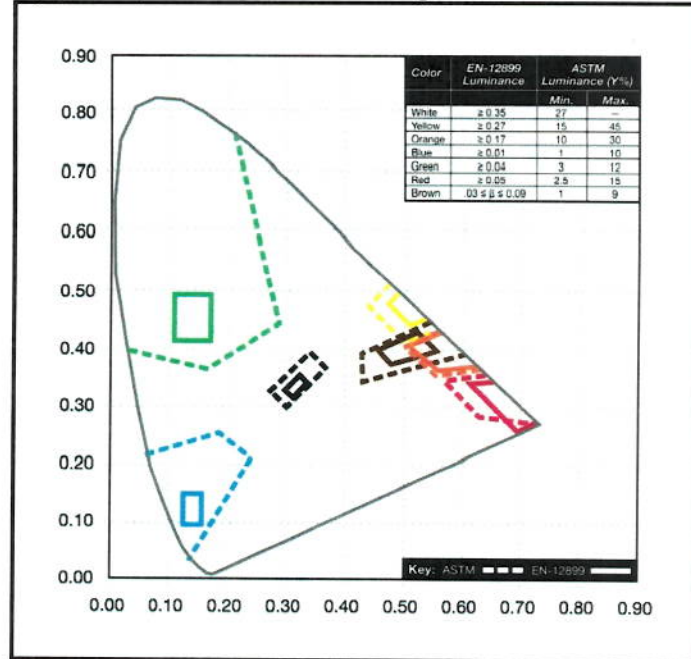
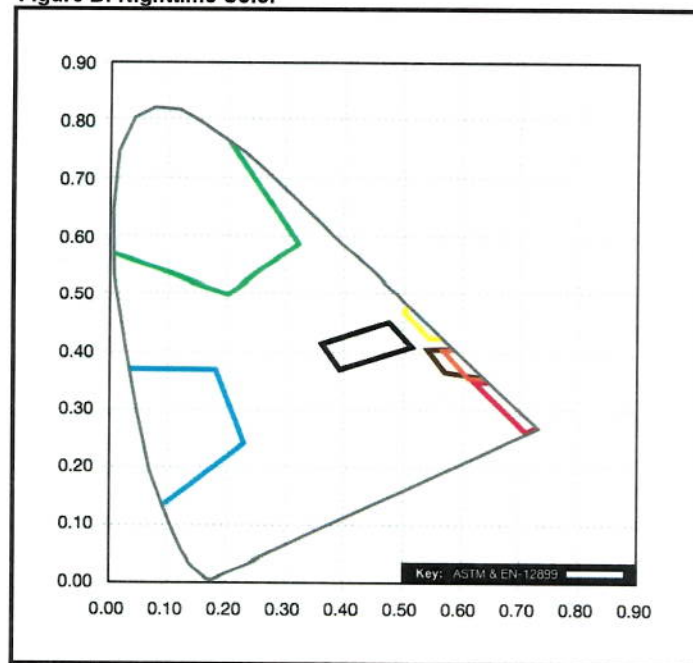


Figure B: Nighttime Color



T-1000 & W-1000 Series meets the current applicable daytime and nighttime color requirements for ASTM D4956 and EN-12899 as well as standards listed on Page 2.

Chromaticity Coordinate Limits

Figures A & B show the four pairs of chromaticity coordinates from ASTM D4956 and EN-12899 on the color grid.

Daytime Color

The four pairs of chromaticity coordinates in Figure A determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in Figure A.

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

Nighttime Color

The four pairs of chromaticity coordinates in Figure B determine the acceptable color measured using CIE Illuminant A, observation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.

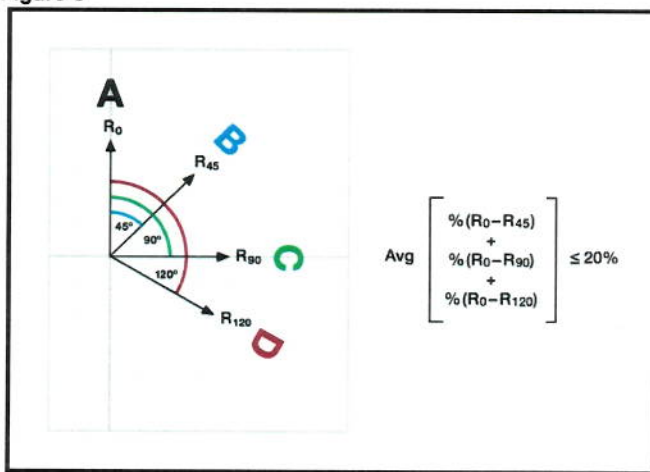
Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Sheeting Orientation:

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive, the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore, no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and cumbersome fabrication techniques are required to orient sheets, cut sign legend or border tape during sign fabrication.

Specifying agencies and sign fabricators are cautioned that some retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

T-1000 & W-1000 Series is Omni-Directional and **passes** the AASHTO specification as being **rotationally insensitive**.

Retroreflectivity R_A values taken per ASTM E810
0.5° Observation angle and
-4° or 5° Entrance angle

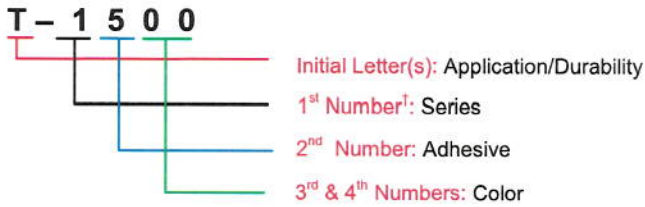
As a datum for laboratory measurements R_0 is identified in the crossweb direction.

Watermark: T-1000 & W-1000 Series does not have a watermark.

Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Nomenclature:



Initial Letter	Application	Durability*
T	Traffic/Permanent Sheeting	7 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

* See your local representative for complete details.

Series	1000
--------	------

2 nd Number	Substrate
1	Pressure Sensitive for Plastic Substrates
2	Pressure Sensitive for Wood Substrates
5	Pressure Sensitive for Aluminum Substrates

3 rd & 4 th Numbers	Color
00	White
01	Yellow
04	Orange
05	Blue
07	Green
08	Red
09	Brown
11	Fluorescent Yellow
13	Fluorescent Yellow-Green
14	Fluorescent Orange
42	4" LEFT Orange Pre-Striped Barricade
43	4" RIGHT Orange Pre-Striped Barricade
44	6" LEFT Orange Pre-Striped Barricade
45	6" RIGHT Orange Pre-Striped Barricade

†OmniCube is the exception and leads with the number 11

The following Warranty is limited to North America.

WARRANTY

Avery Dennison T-1000 & W-1000 beaded retroreflective sheeting ("Product(s)") are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer). It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

Avery Dennison further warrants that Avery Dennison® T-1000 & W-1000 Beaded reflective sheeting will retain its effectiveness as a component of traffic control and guidance signs, and will meet the stated minimum values for coefficient of retroreflection ("Performance Warranty") as set forth in accordance with the following standards:

Warranty Period*	Minimum Percentage R _s Retained
1-7 years	50%

*Performance Warranty Period for Work Zone products is one to three (1-3) years

Note: For transparent color screen printed areas using Avery Dennison supplied or approved inks or OL-2000 Overlay films on Avery Dennison® T-1500 white sheeting, values shall be a minimum of 70% of values in Table A

R_s percentage retained above apply to all entrance and observation angles in Table A, and shall be measured per ASTM E 810.

All measurements shall be made after cleaning according to Avery Dennison procedures.

PERFORMANCE WARRANTY

If within seven (7) years of installation such deterioration occurs or the Product fails to retain the minimum seven (7)-year reflectivity values, Avery Dennison will restore the installation surface to its original effectiveness at no cost for materials or labor.

CONDITIONS

This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the "Procedures"). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Sheet including adhesive and other material product data sheets.



Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	4.5 – 5.5 mils (114 – 140µ) W-1100 Series: 5.5 - 6.5 mils (139 - 165µ)	NA
Min. Application Temperature	65° F (18° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with T-1000 & W-1000 is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Inkjet Printing	User assumes responsibility for fitness of use for this converting method. Long term durability of inkjet printing in combination with T-1000 & W-1000 series is not warranted.	#8.55
Thermal Transfer Printing	Long term durability of thermal transfer printing in combination with T-1500D is warranted. Refer to Instructional Bulletin.	#8.60

ADDITIONAL LIMITATIONS

Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective.

Misuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed. Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other spilled chemicals pollutants, including industrial and volcanic ash. Damage from fire, structural failure, lightning, accidents, and other force majeure events are not covered by this warranty.

Third Party Product: Avery Dennison assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where installer or converter uses or reference is made to a commercially available product, made by another manufacturer, it shall be the responsibility of the user, installer or converter to ascertain the precautionary measures for its use outlined by the manufacturer.

The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Avery Dennison® T-1000 & W-1000 Series Engineering Grade Beaded Retroreflective Film

Issued: July 2013

Converting Information:

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website, www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

Approved screen printing inks, overlays, thermal transfer ribbons:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	7TS	1 Part Solvent	#8.37
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10
Matan	DTS	Thermal Transfer	#8.60

Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
7TS Series Ink	#8.37
Ink Recommendations Guide	#8.55
Matan Thermal Transfer Printing	#8.60

Substrates:

The application of Avery Dennison T-1000 & W-1000 Series sheeting is limited to properly prepared substrates which differ by product. For traffic products and W-1504, application is limited to properly prepared Aluminum. For products in the W-1100 line, application is limited to properly prepared plastic. For products in the W-1200 line, application is limited to properly prepared wood. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

DEFINITIONS

Durability: means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

Outdoor Durability: is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions.

Vertical Exposure: means that the face of the finished graphic is $\pm 10^\circ$ from vertical.

Non-Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this exposure.

Flat surfaces: means a two dimensional flat surface without protruding objects.

Weathering Effects: Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

Printing, Curing and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other treatment or processing errors are not warranted.

Adhesion to Application Surfaces: This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath the Product

INDEPENDENT TESTING REQUIRED

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

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Avery Dennison® T-6000 & W-6000 HIP Series

High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Avery Dennison® T-6000 & W-6000 Series High Intensity Microprismatic (HIP) Retroreflective Film for permanent and temporary traffic signage, is a high-quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. Its unique microprismatic construction provides a high level of retroreflectivity for demanding traffic control situations.

T-6000 & W-6000 Series sheeting is an Omni-Directional microprismatic film that incorporates tiles of microprisms arranged in multiple orientations. This feature – “Smart at Every Angle” benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.

Features:

- Omni-Directional
- High Intensity Microprismatic Retroreflective Performance
- Field proven long term durability on safety devices worldwide
- Uniform daytime and nighttime visual appearance



Performance:
ASTM D4956 Type III & IV,
CUAP Table 7
See Page 2 for complete list.



Orientation: Omni-Directional



Durability: 10 year
Vertical Exposure only
(12 year with OL1000)



Face: High-Gloss Acrylic
Retroreflective Film with
Microprisms



Adhesive: Permanent
Pressure Sensitive



Liner: Polypropylene Film



Printable with: TrafficJet™
Print System

Conversion:

- Screen Printing
- Thermal Transfer Printing
- Eco Solvent Inkjet Printing
- Thermal Die-Cut
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Sign-Cut

Applications:

- Rigid Permanent and Temporary Outdoor Signage
- Rigid Work Zone Devices
- Safety Devices that Require Robust Retroreflective Performance

*See Page 5 for Nomenclature

**3 Year Warranty

***Non-Digital Printable Product

Product Availability*:

Traffic Products		
T-6500	White	
T-6501	Yellow	
T-6505	Blue	
T-6507	Green	
T-6508	Red	
T-6509	Brown	
Work Zone Products**		
W-6100	White	
W-6500D	White	
W-6501D	Yellow	
W-6504D	Orange	
W-6511	Fluorescent Yellow ***	
W-6513	Fl Yellow-Green***	
W-6142	Orange	4" Left
W-6143		4" Right
W-6144	Pre-Striped Barricade	6" Left
W-6145		6" Right
W-6245	Red Barricade	6" Left
W-6246		6" Right
W-6148	Red Barricade	6" Left
W-6149		6" Right

Product Data Sheet

Page 1 of 7

Reflective Solutions
7542 North Natchez Ave.
Niles, IL 60714



www.reflectives.averydennison.com

Avery Dennison® T-6000 & W-6000 HIP Series

High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Retroreflectivity:

Table A:

Min. coefficients of retroreflection (R_A)¹ per ASTM D4956² Type III & IV

Observation Angle	Color	Entrance Angle	
		- 4°	+ 30°
0.1° ³	White	500	240
	Yellow	380	175
	Orange	200	94
	Blue	42	20
	Green	70	32
	Red	90	42
	Brown	25	12
	Fluorescent Yellow	300	140
	Fluorescent Yellow-Green	400	185
0.2°	White	360	170
	Yellow	270	135
	Orange	145	68
	Blue	30	14
	Green	50	25
	Red	65	30
	Brown	18	8.5
	Fluorescent Yellow	220	100
	Fluorescent Yellow-Green	290	135
0.5°	White	150	72
	Yellow	110	54
	Orange	60	28
	Blue	13	6.0
	Green	21	10
	Red	27	13
	Brown	7.5	3.5
	Fluorescent Yellow	90	40
	Fluorescent Yellow-Green	120	55

Table B:

Min. coefficients of retroreflection (R_A)¹ CUAP Table 7 (EN-12899 RA2)

Observation Angle	Color	β_1 ($\beta_2=0^\circ$) Entrance Angle		
		+ 5°	+ 30°	+ 40°
12' (0.2°)	White	250	150	110
	Yellow	170	100	70
	Orange	100	60	29
	Blue	20	11	8
	Green	45	25	12
	Red	45	25	15
	Brown	12	8.5	5.0
20' (0.33°)	White	180	100	95
	Yellow	120	70	60
	Orange	65	40	20
	Blue	14	8.0	7.0
	Green	21	12	11
	Red	25	14	13
	Brown	8.0	5.0	3.0
2°	White	5.0	2.5	1.5
	Yellow	3.0	1.5	1
	Orange	1.5	1	--
	Blue	0.2	--	--
	Green	0.5	0.3	0.2
	Red	1	0.4	0.3
	Brown	0.2	--	--

HIP Series sheeting **exceeds** all values listed in **Table A** and **Table B**.

HIP Series sheeting also **exceeds** the current applicable requirements for the following specifications:

ASTM D4956	International
AASHTO M268	USA
CUAP	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135340	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 3952	Argentina

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

R_A =
candelas per foot-candle per square foot (cd/ft²) OR
Candelas per lux per square meter (cd/lx/m²)

² Measured according to ASTM E810

³Note that 0.1° Observation angle is a "supplemental Requirement" in ASTM D4956. It represents long highway viewing distances of about 900 ft (275 Meters) and greater.

Avery Dennison® T-6000 & W-6000 HIP Series High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Colors and Specification Limits:

Figure A: Daytime Color

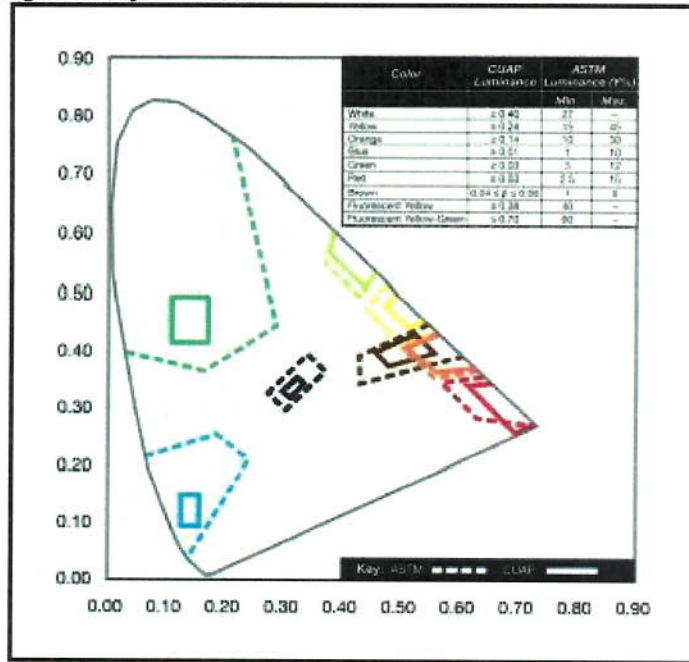
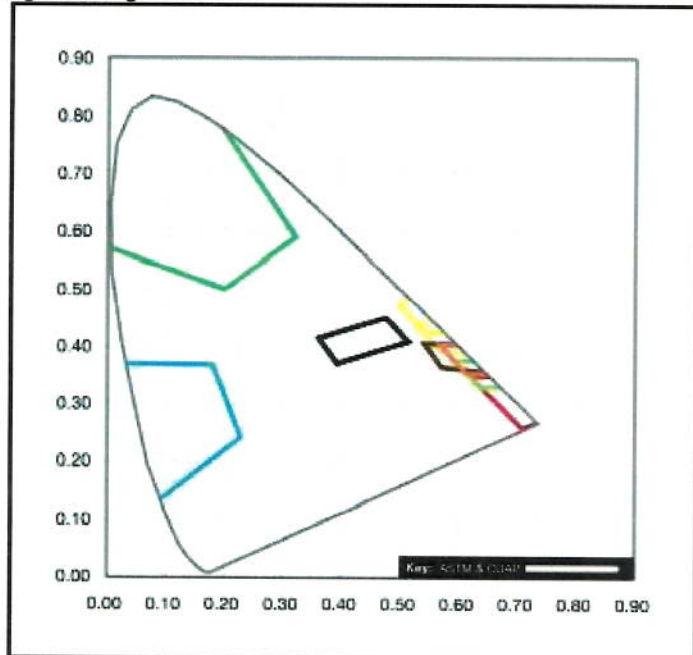


Figure B: Nighttime Color



HIPSeries sheeting **meets** the current applicable daytime and nighttime color requirements for ASTM D4956 and CUAP as well as standards listed on Page 2.

Chromaticity Coordinate Limits

Figures A & B show the four pairs of chromaticity coordinates from ASTM D4956 and CUAP on the color grid.

Daytime Color

The four pairs of chromaticity coordinates in **Figure A** determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in **Figure A**.

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

Nighttime Color

The four pairs of chromaticity coordinates in **Figure B** determine the acceptable color measured using CIE Illuminant A, observation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.

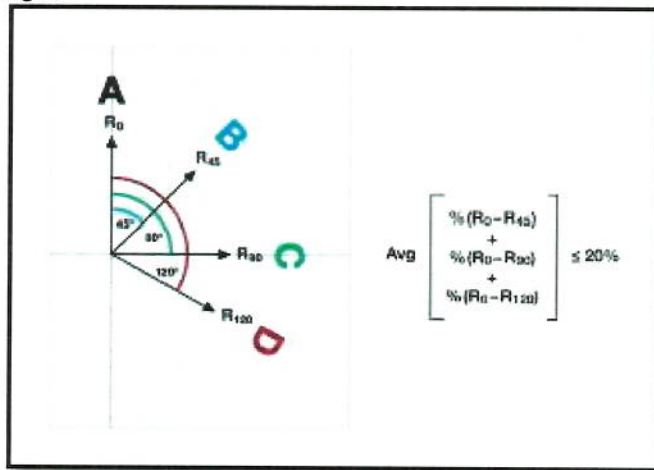
Avery Dennison® T-6000 & W-6000 HIP Series High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Sheeting Orientation:

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and cumbersome fabrication techniques are required to orient sheets, cut sign legend or border tape during sign fabrication.

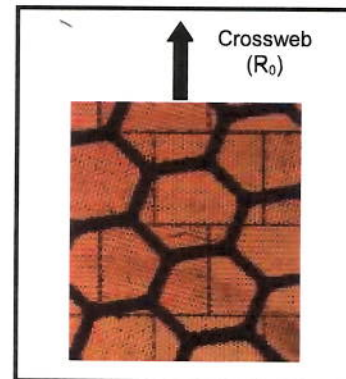
Specifying agencies and sign fabricators are cautioned that some retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

HIP Series sheeting is Omni-Directional and **passes** the AASTHO specification as being **rotationally insensitive**.

Retroreflectivity R_A values taken per ASTM E810
0.5° Observation angle and
-4° or 5° Entrance angle

As a datum for laboratory measurements R_0 is identified in the crossweb direction. See **Figure D**

Figure D



Watermark: HIP Series contains the watermark seen in **Figure E**.

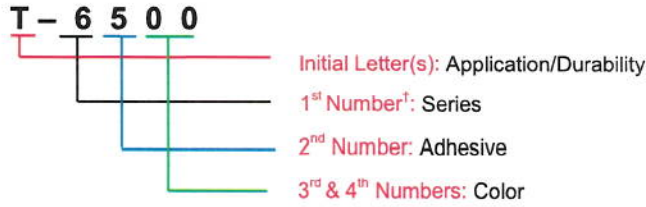
Figure E

HIP Lot #

Avery Dennison® T-6000 & W-6000 HIP Series High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Nomenclature:



Initial Letter	Application	Durability*
T	Traffic/Permanent Sheeting	10 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

* See your local representative for complete details.

Series	6000
--------	------

2 nd Number	Substrate
1	Pressure Sensitive for Plastic Substrates
2	Pressure Sensitive for Wood Substrates
5	Pressure Sensitive for Aluminum Substrates

3 rd & 4 th Numbers	Color
00	White
01	Yellow
04	Orange
05	Blue
07	Green
08	Red
09	Brown
11	Fluorescent Yellow
13	Fluorescent Yellow-Green
14	Fluorescent Orange
42	4" LEFT Orange Pre-Striped Barricade
43	4" RIGHT Orange Pre-Striped Barricade
44	6" LEFT Orange Pre-Striped Barricade
45	6" RIGHT Orange Pre-Striped Barricade
48	6" Left Red Pre-Stripe Barricade
49	6" Right Red Pre-Stripe Barricade

†OmniCube is the exception and leads with the number 11

WARRANTY

Avery Dennison T-6000 & W-6000 prismatic retroreflective sheeting ("Product(s)") are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer). It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

CONDITIONS

This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the "Procedures"). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Sheet including adhesive and other material product data sheets.

Avery Dennison® T-6000 & W-6000 HIP Series High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	18 – 19 mils (457 – 483µ) Orange: 17 – 18 mils (432 – 457µ) W-6500/01D 14 – 15 mils (356 – 381µ)	NA
Min. Application Temperature	50° F (10° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with HIP series sheeting is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Eco Solvent Inkjet Printing	Long term durability of inkjet printing in combination with HIP series sheeting is warranted when used with approved inks and printer systems. See Page 7.	TrafficJet™ Print System
Thermal Transfer Printing	Long term durability of Thermal Transfer Printing in combination with any HIP series sheeting is warranted when used with approved ribbons and printer systems.	#8.60

ADDITIONAL LIMITATIONS

Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective.

Misuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed. Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other spilled chemicals pollutants, including industrial and volcanic ash. Damage from fire, structural failure, lightning, accidents, and other force majeure events are not covered by this warranty.

Third Party Product: Avery Dennison assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where installer or converter uses or reference is made to a commercially available product, made by another manufacturer, it shall be the responsibility of the user, installer or converter to ascertain the precautionary measures for its use outlined by the manufacturer.

The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief, whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Avery Dennison® T-6000 & W-6000 HIP Series High Intensity Microprismatic Retroreflective Film

Issued: April 2018

Converting Information:

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website, www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

Approved Screen Printing Inks, Overlays, and Printer Systems:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	4930 Inks	1 Part Solvent	#8.40
Avery Dennison	UVTS Nazdar	UV	#8.38
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10
Matan	DTS	Thermal Transfer	#8.60
Avery Dennison	TrafficJet™ 1638 - 8 Color	Eco Solvent Inkjet*	TrafficJet™ Print System

* See Instructional Bulletin for overlay requirements.

Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
Ink Recommendations Guide	#8.55

Substrates:

The application of Avery Dennison HIP Series sheeting is limited to properly prepared substrates which differ by product. For traffic products and W-6504, application is limited to properly prepared Aluminum. For products in the W-6100 line, application is limited to properly prepared plastic. For products in the W-6200 line, application is limited to properly prepared wood. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

DEFINITIONS

Durability: means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

Outdoor Durability: is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions.

Vertical Exposure: means that the face of the finished graphic is $\pm 10^\circ$ from vertical.

Non-Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this exposure.

Flat surfaces: means a two dimensional flat surface without protruding objects.

Weathering Effects: Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

Printing, Curing and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other treatment or processing errors are not warranted.

Adhesion to Application Surfaces: This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath the Product.

INDEPENDENT TESTING REQUIRED

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

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Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Avery Dennison® T-7000 & W-7000 Maximum Visual Performance (MVP) Series Microprismatic Retroreflective Film is a premium product providing high levels of performance for demanding long distance conspicuity. It is a high-quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive.

T-7000 & W-7000 MVP Series sheeting is an Omni-Directional microprismatic film that incorporates tiles of microprisms arranged in multiple orientations. This feature – “Smart at Every Angle” benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.

Features:

- Omni-Directional
- Microprismatic Retroreflective Performance
- Field proven long term durability on safety devices worldwide
- Uniform daytime and nighttime visual appearance

Conversion:

- Screen Printing
- Thermal Transfer Printing
- Eco Solvent Inkjet Printing
- Thermal Die-Cut
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Sign-Cut

Applications:

- Rigid Permanent and Temporary Outdoor Signage
- Rigid Work Zone Devices
- Safety Devices that require Long Distance Retroreflective Performance



Performance:
ASTM D4956 Type VIII
CUAP Type 3A
See Page 2 for complete list.



Orientation: Omni-Directional



Durability: 10 years
Vertical exposure only.



Face: High-Gloss Acrylic
Retroreflective Film with
Microprisms



Adhesive: Permanent
Pressure Sensitive



Liner: Polypropylene Film

Product Data Sheet
Page 1 of 7
Reflective Solutions
7542 North Natchez Ave.
Niles, IL 60714

Product Availability*:

<i>Traffic Products</i>	
T-7500	White
T-7501	Yellow
T-7505	Blue
T-7507	Green
T-7508	Red
T-7509	Brown
T-7511	Fluorescent Yellow
T-7513	Fluorescent Yellow-Green
T-7113	Fluorescent Yellow-Green
<i>Work Zone Products**</i>	
W-7200	White
W-7114	Fluorescent Orange
W-7214	
W-7514	

*See Page 5 for Nomenclature

**3 Year Durability



www.reflectives.averydennison.com

Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Retroreflectivity:

Table A:

Min. coefficients of retroreflection (R_A)¹ per ASTM D4956² Type VIII

Observation Angle	Color	Entrance Angle	
		- 4°	+ 30°
0.1° ³	White	1000	460
	Yellow	750	345
	Blue	60	28
	Green	100	46
	Red	150	69
	Brown	30	14
	Fluorescent Yellow	600	280
	Fluorescent Yellow-Green	800	370
	Fluorescent Orange	300	135
0.2°	White	700	325
	Yellow	524	245
	Blue	42	20
	Green	70	33
	Red	105	49
	Brown	21	10
	Fluorescent Yellow	420	200
	Fluorescent Yellow-Green	560	260
	Fluorescent Orange	210	95
0.5°	White	250	115
	Yellow	190	86
	Blue	15	7.0
	Green	25	12
	Red	38	17
	Brown	7.5	3.5
	Fluorescent Yellow	150	69
	Fluorescent Yellow-Green	200	92
	Fluorescent Orange	75	35

Table B:

Min. coefficients of retroreflection (R_A)¹ per CUAP Table 8

Observation Angle	Color	Entrance Angle			
		+ 5°	+ 20°	+ 30°	+ 40°
0.1° ³	White	850	600	425	275
	Yellow	550	390	275	175
	Blue	55	40	28	18
	Green	85	60	40	25
	Red	170	120	85	55
	Brown	25	18	12	8.0
	Fluorescent Yellow	510	360	255	165
	Fluorescent Yellow-Green	680	480	340	220
	Fluorescent Orange	255	180	127	82
0.2°	White	625	450	325	200
	Yellow	400	290	210	130
	Blue	40	30	20	13
	Green	60	45	30	20
	Red	125	90	65	40
	Brown	18	13	9.0	6.0
	Fluorescent Yellow	375	270	195	120
	Fluorescent Yellow-Green	500	360	260	160
	Fluorescent Orange	187	135	97	60
0.33°	White	425	300	225	150
	Yellow	275	195	145	95
	Blue	28	20	15	10
	Green	40	30	20	15
	Red	85	60	45	30
	Brown	12	9.0	6.0	4.0
	Fluorescent Yellow	255	180	135	90
	Fluorescent Yellow-Green	340	240	180	120
	Fluorescent Orange	127	90	67	45

MVP Series sheeting **exceeds** all values listed in **Table A** and **Table B**.

MVP Series sheeting also **exceeds** the current applicable requirements for the following specifications:

ASTM D4956	International
AASHTO M268	USA
CUAP	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135340	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 3952	Argentina

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

¹ R_A =
candelas per foot-candle per
square foot (cd/ft²) OR
Candelas per lux per square meter
(cd/lx/m²)

² Measured according to ASTM E810

³ Note that 0.1° Observation angle is a "supplemental Requirement" in ASTM D4956. It represents long highway viewing distances of about 900 ft (275 Meters) and greater.

Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Colors and Specification Limits:

Figure A: Daytime Color – CIE Color Diagram

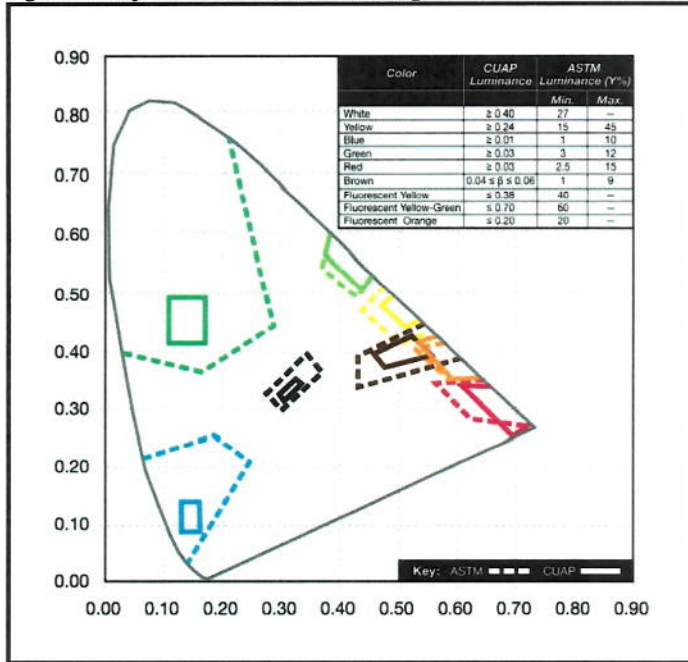
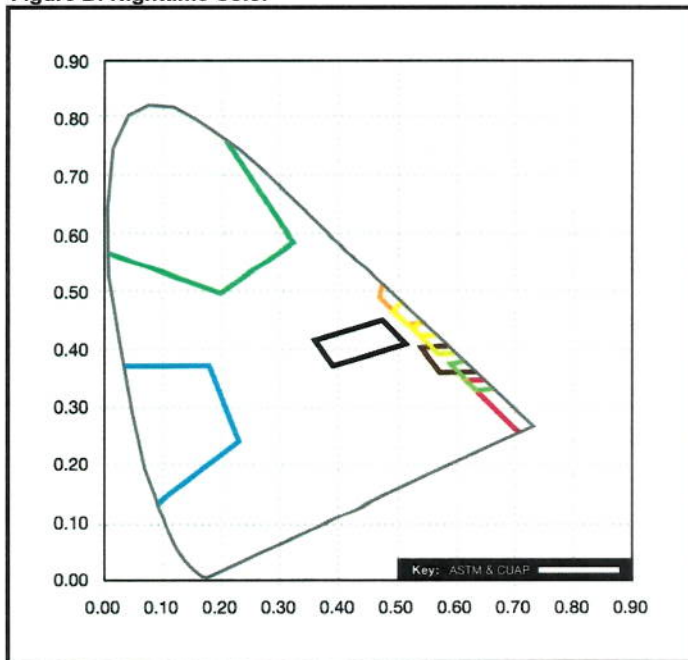


Figure B: Nighttime Color



MVP Series sheeting **meets** the current applicable daytime and nighttime color requirements for ASTM D4956 and CUAP as well as standards listed on Page 2.

Chromaticity Coordinate Limits

Figures A & B show the four pairs of chromaticity coordinates from ASTM D4956 and CUAP on the color grid.

Daytime Color

The four pairs of chromaticity coordinates in **Figure A** determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in **Figure A**.

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

Nighttime Color

The four pairs of chromaticity coordinates in **Figure B** determine the acceptable color measured using CIE Illuminant A, observation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.

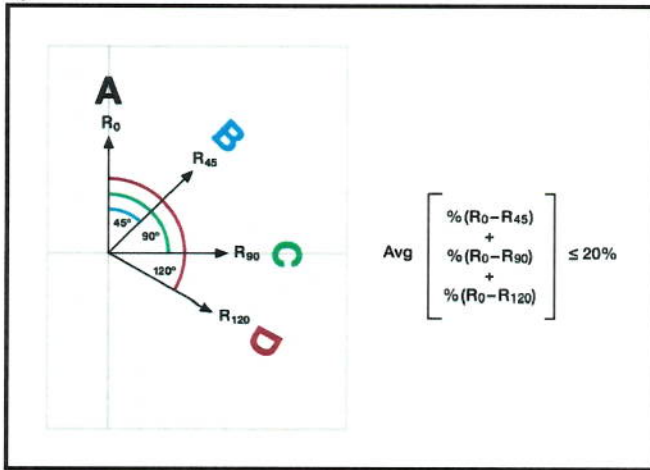
Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Sheeting Orientation:

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive, the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore, no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and cumbersome fabrication techniques are required to orient sheets, cut sign legend or border tape during sign fabrication.

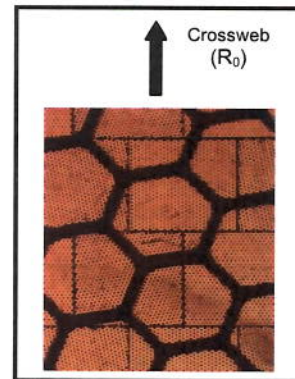
Specifying agencies and sign fabricators are cautioned that some Retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

MVP Series sheeting is Omni-Directional and **passes** the AASHTO specification as being **rotationally insensitive**.

Retroreflectivity R_A values taken per ASTM E810
0.5° Observation angle and
-4° or 5° Entrance angle

As a datum for laboratory measurements R_0 is identified in the crossweb direction. See **Figure D**.

Figure D



Watermark: MVP Series contains the watermark seen in **Figure E**.

Figure E



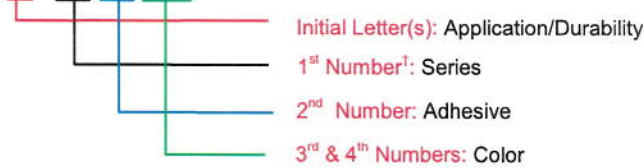
Lot #

Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Nomenclature:

T - 7 5 0 0



Initial Letter	Application	Durability*
T	Traffic/Permanent Sheeting	10 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

* See your local representative for complete details.

Series	7000
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2 nd Number	Substrate
1	Pressure Sensitive for Plastic Substrates
2	Pressure Sensitive for Wood Substrates
5	Pressure Sensitive for Aluminum Substrates

3 rd & 4 th Numbers	Color
00	White
01	Yellow
04	Orange
05	Blue
07	Green
08	Red
09	Brown
11	Fluorescent Yellow
13	Fluorescent Yellow-Green
14	Fluorescent Orange
42	4" LEFT Orange Pre-Striped Barricade
43	4" RIGHT Orange Pre-Striped Barricade
44	6" LEFT Orange Pre-Striped Barricade
45	6" RIGHT Orange Pre-Striped Barricade

[†]OmniCube is the exception and leads with the number 11

The following Warranty is limited to North America.

WARRANTY

Avery Dennison T-7000 & W-7000 microprismatic reflective sheeting ("Product(s)") are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer). It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

Avery Dennison further warrants that Avery Dennison® T-7000 & W-7000 microprismatic reflective sheeting will retain its effectiveness as a component of traffic control and guidance signs, and will meet the stated minimum values for coefficient of retroreflection ("Performance Warranty") as set forth in accordance with the following standards:

Warranty Period*	Minimum Percentage R _a Retained
1-7 years	80%
8-10 years	80%

* Performance Warranty Period for Work Zone products is one to three (1-3) years

Note: For transparent color screen printed areas using Avery Dennison supplied or approved inks or OL-2000 Overlay films on Avery Dennison® T-7500 white sheeting, values shall be a minimum of 70% of values in Table A

R_a percentage retained above apply to all entrance and observation angles in Table A, and shall be measured per ASTM E 810.

All measurements shall be made after cleaning according to Avery Dennison procedures.

PERFORMANCE WARRANTY

If within ten (10) years from the initial date of installation, the Product deteriorates due to natural causes to the extent that: 1) the Product fails to retain the minimum reflectivity values warranted for the ten (10) year period under the standard in force at the time of installation, or 2) the Product is ineffective for its intended purpose when viewed from a moving vehicle under normal daytime or nighttime driving conditions, Avery Dennison will furnish a replacement amount of like Product at no cost to enable the installed surface to be restored to its original effectiveness. If within seven (7) years of installation such deterioration occurs or the Product fails to retain the minimum seven (7) year reflectivity values, Avery Dennison will restore the installation surface to its original effectiveness at no cost for materials or labor.

CONDITIONS

This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the "Procedures"). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Sheet including adhesive and other material product data sheets.



Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	17 - 18 mils (432 - 457µ) Fluorescent Orange: 15.5 – 16.5 mils (394 - 419 µ) All Other Fluorescent Colors: 20 - 21 mils (508 - 535 µ)	NA
Min. Application Temperature	50° F (10° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with MVP Series is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Eco Solvent Inkjet Printing	Long term durability of inkjet printing in combination with MVP Series is warranted when used with approved inks and printer systems. See Page 7.	#8.61
Thermal Transfer Printing	Long term durability of thermal transfer printing in combination with MVP Series is warranted when used with approved ribbons and printer systems. See Page 7.	#8.60

ADDITIONAL LIMITATIONS

Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or attorney's fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product, Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective.

Misuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed. Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other spilled chemicals pollutants, including industrial and volcanic ash. Damage from fire, structural failure, lightning, accidents, and other force majeure events are not covered by this warranty.

Third Party Product: Avery Dennison assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where installer or converter uses or reference is made to a commercially available product, made by another manufacturer, it shall be the responsibility of the user, installer or converter to ascertain the precautionary measures for its use outlined by the manufacturer.

The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Avery Dennison® T-7000 & W-7000 MVP Series Microprismatic Retroreflective Film

Issued: July 2013

Converting Information:

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements.

Find the latest information on the Avery Dennison website, www.reflectives.averydennison.com. We encourage you to check our website periodically for updates.

Approved Screen Printing Inks, Overlays, and Printing Systems:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	4930 Inks	1 Part Solvent	#8.40
Avery Dennison	UVTS Nazdar	UV	#8.38
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10
Matan	DTS	Thermal Transfer	#8.60
Avery Dennison	TrafficJet™ 1638 - 8 Color	Eco Solvent Inkjet*	#8.61

* Warranted for black ink on 3 year durable work zone applications. Clear overlay not required.

Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
Ink Recommendations Guide	#8.55

Substrates:

The application of Avery Dennison MVP Series sheeting is limited to properly prepared substrates which differ by product. For traffic products, application is limited to properly prepared Aluminum. For products in the W-7100 line, application is limited to properly prepared plastic. For products in the W-7200 line, application is limited to properly prepared wood. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

DEFINITIONS

Durability: means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

Outdoor Durability: is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions.

Vertical Exposure: means that the face of the finished graphic is $\pm 10^\circ$ from vertical.

Non-Vertical Exposure: means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. Retroreflective films are not warranted for this exposure.

Flat surfaces: means a two dimensional flat surface without protruding objects.

Weathering Effects: Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

Printing, Curing and Ink Defects: Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other treatment or processing errors are not warranted.

Adhesion to Application Surfaces: This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath the Product.

INDEPENDENT TESTING REQUIRED

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

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