**Exhibit B – Portable Roadway Signs & Stands Specifications and Customer Service Expectations**

**INSTRUCTIONS:**

For each line item

* Review each specification/expectation carefully.
* Sign the document and return with bid submittal.

**Specifications - Roll Up Signs**

Roll up warning signs shall conform to the requirements of the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), <http://www.wsdot.wa.gov/Operations/Traffic/mutcd.htm>, Part VI and the following:

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| 1. Reflective sheeting for roll up warning signs shall be orange and fluorescent orange. Orange sign sheeting shall conform to the requirements of ASTM D4956, type VI. Fluorescent Orange sign sheeting shall be ORALITE® Super Bright™ or Marathon Fluorescent Orange Roll Up Sign Sheeting. 3M™ Diamond Grade™ Fluorescent Orange Roll Up Sign Sheeting. |
| 1. Each sign shall include fiberglass cross braces. The vertical brace shall be permanently attached to the back of sign. The horizontal brace shall pivot in the center to allow for sign to be rolled for storage. When assembled the horizontal brace shall be attached to the sign by a mechanism other than sewn pockets and will not allow “blow-out” detachment of sign from cross brace. Dimension of braces shall be 1 ¼” wide x ¼” thick. Ends of braces to be sanded and rounded as necessary. |
| 1. All signs shall come with a minimum of two flags and a flag staffs attached to the vertical cross brace. Flags shall be 18 inch square and attached so flags can be deployed in place at left and right of sign top upon setup with no additional hardware. Position of flags when in the setup position to conform toMUTCD requirements. The flags and staffs shall roll up for storage in the sign without disassembling. |
| 1. Signs shall be equipped with a Velcro strap sewn to the back of the sign face for storing in rolled up position. |

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| 1. Signs and stands shall be crashworthy certified meeting the requirements of the National Cooperative Highway Research Program (NCHRP) Report 350, or American Association of State Highway and Transportation Officials (AASHTO) Manual for Assessing Safety Hardware (MASH).   <https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/listing.cfm?code=workzone&filter=MASH>  <https://bookstore.transportation.org/> |
| 1. Signs must be of same manufacture as the stands noted in this IFB. This is part of NCHRP Report 350. |
| 1. Contractor shall agree to provide a library of sign faces consistent with Washington State Department of Transportation (WSDOT) Sign Fabrication Manual (M55-05) found at <http://www.wsdot.wa.gov/Publications/Manuals/M55-05.htm> and the MUTCD that represents those commonly used in industry. As WSDOT pays for development of additional sign faces, these shall be added to the library for use by all WSDOT locations at no additional cost. Library shall be updated and distributed on request by WSDOT locations. |
| 1. All diamond signs for WSDOT use shall be 48” X 48”. Other Purchasers may elect to utilize 36” X 36” signs specified in contract. |
| 1. Shipping: Signs shall be packaged in an appropriate box (maximum of four per box) and clearly labeled with sign legend and purchase order number. |

**Specifications - Portable Sign Stands**

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| 1. Stands shall conform to minimum Washington State Department of Transportation (WSDOT) and Manual on Uniform Traffic Control Devices (MUTCD) requirements, <http://www.wsdot.wa.gov/Operations/Traffic/mutcd.htm>, (e.g. bottom of sign shall be at a minimum 12” above highest point on road in standard set-up). A field test may be required as determined by WSDOT. Stands shall also be tested and certified to meet the requirements of NCHRP Report 350, or MASH. |
| 1. Sign stands shall consist of the following major components: a base assembly, legs and a vertical mast. Legs and mast shall be corrosion resistant 6005-T5 (or equal grade) Aluminum Alloy with wall thickness of .100”. The base must be steel. All corrosive steel parts shall be zinc plated or powder/epoxy coated. Portable sign stands shall be assembled using nut and bolt construction so that worn or damaged parts may be replaced using simple tools. |
| 1. Sign stands shall be permanently assembled and user ready to include all applicable sign mounting brackets required for roll up signs |
| 1. Base assembly shall consist of wind relieving spring system and a flanged hub. The spring system shall be designed to accommodate vertical mast deflections caused by wind and vehicle caused turbulence. The hub shall accommodated attachment of the legs and shall be designed to provide a minimum of three locking positions for each leg: one position for storage and two shall be located to accommodate deployment of the stand on moderately uneven terrain. |
| 1. Stands shall have four legs attached to the base assembly. Large stands shall have one piece rigid legs and compact sign stands shall have two piece, telescoping legs. Each telescoping leg shall positively lock into the retracted and extended positions by means of a spring loaded push button mechanism. The legs shall have a quick single release mechanism activated with a positive pressure to deploy and lockdown the stand. Should be similar in concept to a kick release mechanism. Each leg shall have an anti-skid devise, such as a heavy duty molded rubber foot, securely attached to the end with a rivet. |
| 1. Vertical mast shall be securely fastened to the top of the base assembly. The mast for compact stands shall be fabricated as a single piece. The vertical mast for large stands may be constructed of telescoping sections. Each telescoping section shall positively lock into the extended positions by means of a spring loaded push button mechanism. |
| 1. Product will not be required to support metal signs. |
| 1. Portable sign standards shall be capable of supporting signs in vehicle-caused turbulence at the traffic speed rating indicated herein. Wind deflecting stands shall remain in place and shall functionally return to vertical after yielding to vehicle caused turbulence. |
| 1. Compact sign stands, wind deflecting.   -Weight: <20 lbs.  -Storage Size (folded up): approx. 8” x 8” x 24” h  -Set up Foot Print (legs extended): approx. 44” x 71”  -Traffic Speed Rating: 60+ MPH w/36” sign, 50+ MPH w/ 48” sign |
| 1. Large Stand, wind deflecting.   -Weight (with all brackets attached): approx. 25 lbs.  -Storage size (folded up): approx. 8” x 8” x 46”  -Set up Foot Print: approx. 48” x 78”  -Traffic Speed Rating: 60+ MPH w/48” sign |
| 1. Sign stand, wind deflecting, multi-directional vertical spring system.   - Storage height: 30”  - Open footprint: approx. 92” X 54” |
| 1. Contractor shall provide replacement components when needed. Replacement components to include items such as median barrier clamps, truck mount clamps, truck mount sign brackets and roll up flagging paddles. Replacement components shall be available at a percentage discount off a current catalog. The catalog must be made available to any Purchaser upon request at no cost. |
| **Customer Service Expectations**   |  | | --- | | 1. All signs shall be factory new, no remanufactured signs shall be allowed, unless Purchaser approves. | | 1. Delivery will be Free on Board (FOB) Destination, prepaid and included (except for maintenance, repair or refurbishing). | | 1. Contractor shall provide good customer service - helping customers efficiently, in a friendly manner | | 1. Contractor shall promptly notify the Purchaser when issues occur that affect supply, demand, and delivery. |   By Signing this document you are acknowledging you can meet all of the Specifications and Expectations for the products you are bidding on.  By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Signature  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Print Name  Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Print Title |