# Traffic Sign Specifications

Comments

Following on next page are traffic sign specs which should allow any standard sign company to bid and provide a quality product. You will need to furnish a bid sheet with the name, size and number of signs to be bid or ordered. A sample bid form is included after the specifications. It includes a lot of the standard signs and you can modify it for your agency.

1. Some agencies specify a specific sheeting manufacturer. In that case revise the first sentence in the sheeting section.
2. Warranty: The warranty section of the specifications is basically an industry standard with replacement of sign face if failure occurs with 7 years, and product only 7-10 years.
3. Vandal Protective/Anti-graffiti Overlay Film: If vandalism is a problem you can specify a protective overlay film on specific signs. A vandal protective overlay film will provide a protective layer that resists paint, markers, eggs, stickers and resists solvents. It is important that signs are cleaned according to the sheeting manufacturer recommendations.
4. Protective Clear Overlay Film: In western Kansas blowing sand can wear the ink and lead to premature fading. If that is a problem specify a protective overlay film. This might be a good idea for low mounted object markers. This overlay film is not necessary if an anti-graffiti film is already being specified.
5. Fluorescent yellow is available for warning signs that need more emphasis than the standard yellow, the sign life may not be as long as standard yellow.
6. Construction Signs: Standard Type IV orange sheeting is shown on the sample bid sheet. Due to harsh conditions the standard sheeting manufacturer’s warranty is just 3 years. Since counties keep construction signs in inventory so the sign legend (imaging) specifications are the same as for permanent signs. Fluorescent orange sheeting is not required by the MUTCD and can be specified at county option.

# Traffic Sign Specifications

April 15, 2016

**Federal Standards (FHWA):** All fabricated signs and sign faces furnished shall conform to shape, size, color and legend specified in the Manual on Uniform Traffic Control Devices, (MUTCD), 2009 Edition, and the sign layout details in the Standard Highway Signs (2004 Edition with 2012 Supplement), unless otherwise specifically indicated on the bid sheet listing signs to be furnished.

**Blanks:** All sign blanks shall be 5052-H38 aluminum alloy, minimum of .080 gauge (except those blanks greater than 36" in any dimension, which shall be .10 gauge).

**Sheeting:** All sheeting must be on the current KDOT prequalified list of retroreflective sheeting for the Type specified herein. All colors except fluorescent shall be TYPE IV or better high intensity prismatic. Fluorescent Orange, Yellow and Yellow/Green shall be TYPE VIII or better. The adhesive backing shall be pressure-sensitive.

**Imaging Components**: All materials used to manufacture the sign face such as paint, ink, thermal transfer ribbons, colored overlay sheeting, vandal protective file, and clear UV protective sheeting shall be matched components of the sheeting manufacturer.

**Sheeting Manufacturer’s Warranty:** The sheeting and matched components for permanent signs shall have a 10 year sheeting manufacturer’s warranty from the fabrication date. The warranty shall be that the sign will: (a) remain effective for its intended use when viewed from a moving vehicle under normal day and night driving conditions by a driver with normal vision; (b) after cleaning, will retain 70% of the minimum values for coefficient of retroreflection. The manufacturer will, at its expense: (a) restore the Sign’s surface to its original effectivenessif this failure occurs within seven years after the Fabrication Date; or (b) furnish only the necessary sheeting and matched component materials to restore the sign’s surface to its original effectiveness if failure occurs during the remainder of the warranty period. Orange and Fluorescent Orange sheeting shall have a 3 year warranty.

**Sign Legend:** Apply process inks, overlay films, and cutouts to make the sign legend according to the retroreflective sheeting manufacturer’s recommendation. Make the sign legend using one of the following processes.

* Direct Screen: The legend and border color is applied to the face of the sign by the silkscreen process.
* Reverse Screen: A transparent color is applied to the face of the sign by the silkscreen process to form the legend and border.
* Direct Applied: The legend and border is retroreflective sheeting applied to the face of the sign.
* Overlay Film: Translucent/transparent colored overlay film with legend cut out.
* Digital printing including thermal transfer: Digital printing and thermal transfer printing with a clear UV protective overlay film is allowed only if the process is warranted by the sheeting manufacturer for 10 years.

**Application of Retroreflective Sheeting.** After the legend is applied to the sheeting apply the sheeting to the aluminum blanks according to the sheeting manufacturer’s recommendation. Sheeting splices are not allowed on signs with the minimum dimension less than 48 inches.

**Labelling:** All signs faces with a logo including OM-3s, whether furnish unmounted or mounted on a blank, shall have a company logo or short company name and the year permanently lettered on the sign face sheeting in the same manner as the legend. On screen printed signs the year can be a permanent clear decal with black letters. The lettering size shall be 1/4” to ½” high and placed in or adjacent to the border. Labelling is not required on delineators, OM-1s, OM-2s, & OM-4s.

**Material Certification:** Prior to payment the sign fabricator shall furnish a written certification on company letterhead. The certification shall include the following items:

* The bid number and date.
* That the signs furnished meet the specifications for the bid number
* Name of the retro reflective sheeting manufacturer.
* All imaging components such as paint, ink, thermal transfer ribbons, colored overlay sheeting, and protective sheeting were part of an integrated component system supplied, supported and warranted by the sheeting manufacturer. All fabrication was performed in accordance with sheeting manufacturer’s recommendations.

Include a copy of sheeting manufacturer’s warranty. Also include a letter not more than 18 months old from the sheeting manufacturer certifying the sign fabricator’s facility has been checked and is capable of supplying fully warranted and compliant signs.

Bid Sheet

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **MUTCD**  **No.** | **Description** | **Size**  **Inches** | **Comments** | **Number** | **Unit**  **Price** | **Extension** |
| Fabricated signs on aluminum sign blanks | | | | | | |
| R1-1 | STOP | 30 |  | 10 |  |  |
| R1-1 | STOP | 36 |  | 2 |  |  |
| R1-2 | YIELD | 36 |  | 1 |  |  |
| R1-3P | ALL WAY | 18 X 6 |  | 1 |  |  |
| R2-1 | SPEED LIMIT | 24 X 30 | 40 MPH | 1 |  |  |
| R2-1 | SPEED LIMIT | 24 X 30 | Blank MPH | 1 |  |  |
|  |  |  |  |  |  |  |
| R4-1 | DO NOT PASS | 24 X 30 |  |  |  |  |
| R4-2 | PASS WITH CARE | 24 X 30 |  |  |  |  |
| R8-3a | NO PARKING | 24 X 30 |  |  |  |  |
| R11-2 | ROAD CLOSED | 48 X 30 |  |  |  |  |
| R11-2 | BRIDGE OUT | 48 X30 | BRIDGE OUT |  |  |  |
| R11-4 | ROAD CLOSED TO THRU TRAFFIC | 60 X 30 |  |  |  |  |
| R12-1 | WEIGHT LIMT | 24 x 30 | Blank TONS |  |  |  |
| R12-5 | 3 truck weight limit | 24 x 36 | Blank TONS |  |  |  |
| R12-5 | 3 truck weight limit | 24 x 36 | 10-20-30 TONS |  |  |  |
| OM-2V | all yellow | 6 X 12 |  |  |  |  |
| OM3-3L | OM left | 12 x 36 | Protective film |  |  |  |
| OM3-3R | OM right | 12 x 36 | Protective film |  |  |  |
| OM4-3 | End of road | 18 x 18 |  |  |  |  |
| none | delineator | 3 x 8 | white |  |  |  |
| W1-8 | Chevron | 12 x 18 |  |  |  |  |
| W1-8 | Chevron | 18 x 24 |  |  |  |  |
| W1-1L | Left turn | 30 X 30 |  |  |  |  |
| W1-1R | Right turn | 30 X 30 |  |  |  |  |
| W1-2L | Left curve | 30 x 30 |  |  |  |  |
| W1-1R | Right curve | 30 X 30 |  |  |  |  |
| W1-5L | Winding road | 30 x 30 | left |  |  |  |
| W1-5R | Winding road | 30 x 30 | right |  |  |  |
| W13-1p | Advisory speed | 18 x 18 | 35 MPH |  |  |  |
| W13-1p | Advisory speed | 18 x 18 | 25 MPH |  |  |  |
| W14-3 | NO PASSING ZONE | 48 x 48 x 36 |  |  |  |  |
| W1-6 | Large arrow | 48 x 24 |  |  |  |  |
| W1-7 | 2 way arrow | 48 x 24 |  |  |  |  |
| W3-1 | Stop ahead |  | symbol |  |  |  |
|  |  |  |  |  |  |  |
| W5-2 | NARROW BRIDGE | 36 x 36 |  |  |  |  |
| W-5-3 | ONE LANE BRIDGE | 36 x 36 |  |  |  |  |
| W14-1 | DEAD END | 30 x 30 | Florescent Yellow |  |  |  |
| W8-3 | PAVEMENT ENDS | 36 x 36 |  |  |  |  |
| W8-8 | ROUGH ROAD | 36 x 36 |  |  |  |  |
| W8-18 | ROAD MAY FLOOD | 36 x 36 |  |  |  |  |
| W2-1 | Crossroad | 30 x 30 |  |  |  |  |
| W2-4 | Tee | 30 x 30 |  |  |  |  |
| W4-4P | Cross traffic does not stop | 24 x 12 |  |  |  |  |
| S3-1 | School bus stop | 36 x 36 | Flo. yel. gr. |  |  |  |
|  |  |  |  |  |  |  |
| Pressure sensitive sign faces –(sheeting only not mounted on aluminum blanks) | | | | | | |
|  |  |  |  |  |  |  |
| R1-1 | STOP | 30 |  | 10 |  |  |
|  |  |  |  |  |  |  |
| Construction Signs – black on orange 3 year warranty (mounted on aluminum blanks) | | | | | | |
| W20-1 | ROAD WORK AHEAD | 36 x 36 |  |  |  |  |
| W20-3 | ROAD CLOSED AHEAD | 36 x 36 |  |  |  |  |
| W21-3 | ROAD MACHINERY AHEAD | 36 x 36 |  |  |  |  |
| W20-4 | ONE LANE ROAD AHEAD | 36 x 36 |  |  |  |  |
| M4-9L | DETOUR | 30 x 24 | Left arrow |  |  |  |
| M4-9R | DETOUR | 30 x 24 | Right arrow |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  | **Total** |  |