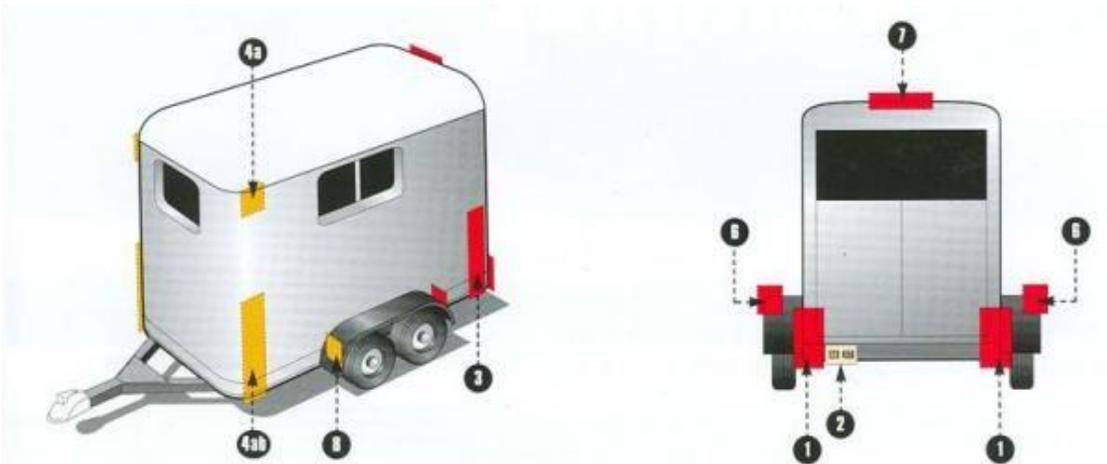


## Making Your Trailer More Visible

Have you noticed that some horse trailers have alternating red and white reflective striping along the lower portion of their sides and back, while others do not? This is because all lighting equipment (which includes reflective striping) on vehicles operated in Canada must comply with Transport Canada Technical Standards Document 108, “Lamps, Reflective Devices, and Associated Equipment”. The red and white reflective striping, referred to as “conspicuity treatment”, is required on trailers which have an overall width of 80 inches or more **and** a Gross Vehicle Weight (GVW) of more than 10,000 pounds.



“Overall width” is measured at the widest point, typically across fenders. Trailers with a GVW of less than 10,000 pounds only require lighting and reflective devices as illustrated in the above drawing which is representative of most bumper pull and some gooseneck horse trailers.



Gooseneck trailer on left has a GVW of 14,000+ pounds requiring reflective striping. Trailer on right has a GVW of under 10,000 pounds and is not required to have reflective striping.

The requirement for reflective material on the sides and rear of trailers came into being in the early 1990's following research into means of improving visibility in low light conditions, and to help reduce incidents of motor vehicles colliding with the rear or sides of stopped/ parked trucks and tractor trailers at night or in weather conditions where there was poor visibility. Trailers manufactured after December 1, 1993, which have an overall width of 80 inches or more and a gross vehicle weight (GVW) of more than 10,000 pounds as described above, must be equipped on the sides and rear with a means of making them more visible on the road. The rule permits "either red and white retro reflective tape or sheeting, or reflex reflectors". Since tape is much easier to apply than individual reflectors, retro reflective tape is the approach used by the majority of trailer manufacturers. (Two notable exemptions from this rule are pole trailers and trailers designed "exclusively for living or office use" which is why large travel trailers, in many cases bigger than our horse trailers, do not feature this conspicuity treatment.)

Reflective tape is readily available (auto parts stores such as NAPA are a good source) and can be applied to trailers with a GVW of under 10,000 pounds to enhance their visibility. There are a couple of rules to remember regarding placement of reflective tape on trailers:

- Sides and back of trailer only, not the front.
- If using the 2 inch wide, alternating red and white tape (known as DOT C2) on sides of trailer, centerline of tape must be between 15 inches (375 mm) and 60 inches (1,525 mm) above the road surface.

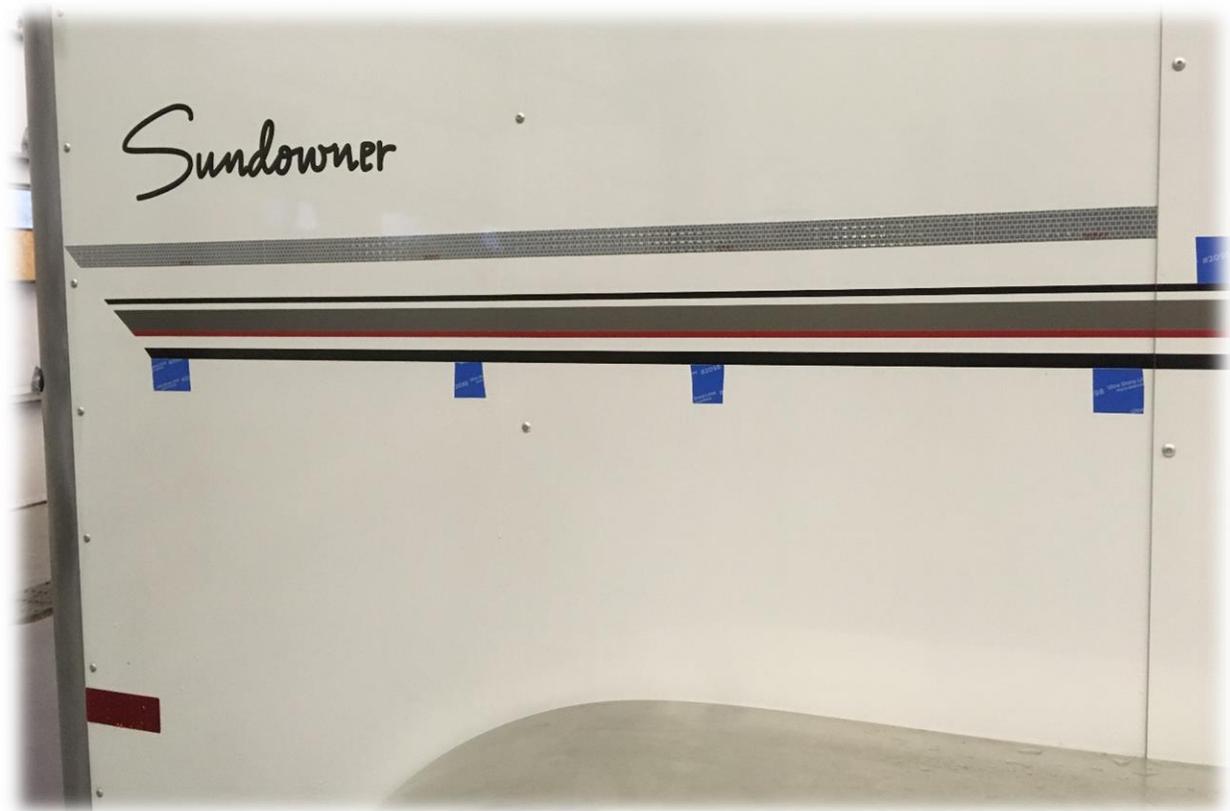
Reflective tape is also available in a variety of colours and widths, making other visibility treatments possible. In this example, 1 inch white (looks silver in daylight) tape was added on sides to both enhance visibility and complement existing trailer graphics, with DOT C2 applied to back of trailer.



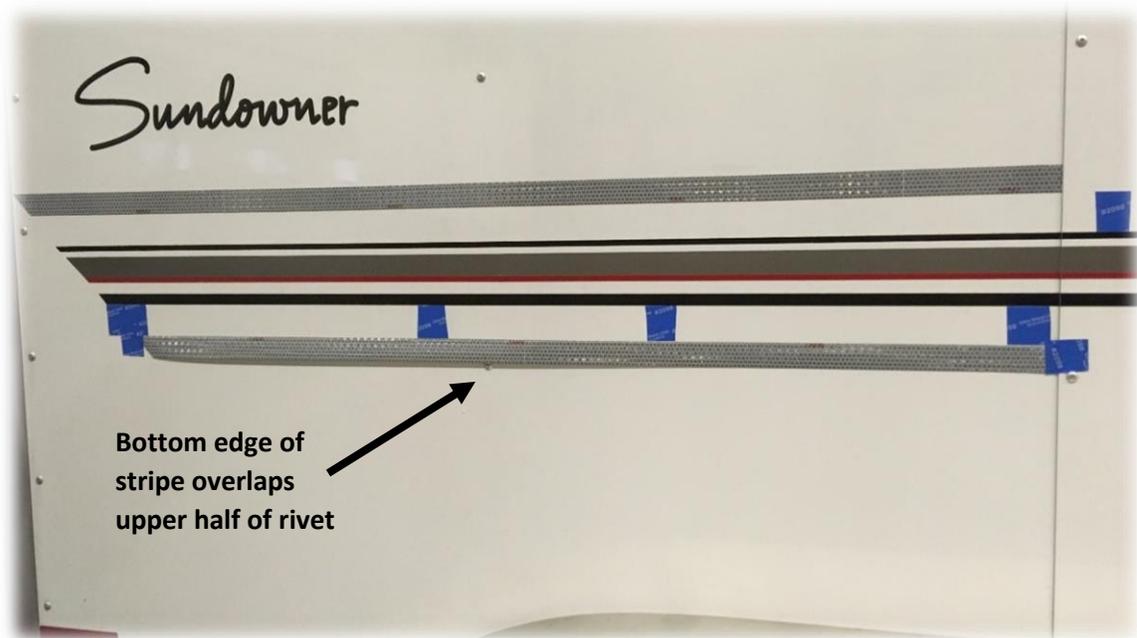
Photos above were taken before and after application of reflective tape, under similar conditions and using camera flash for both images (note reflected light from license plate). While trailer's LED lighting is effective, the reflective tape provides additional visual impact to alert motorists.

Application of reflective tape is quite easy to do. First, prepare surfaces as described below:

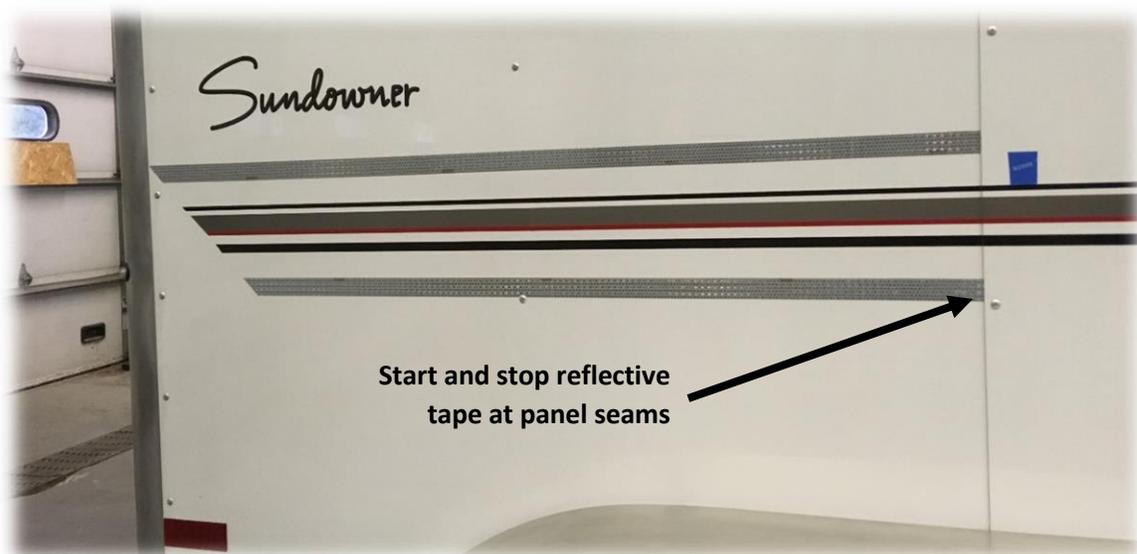
- For best results, reflective tape should be applied when the temperature is between 10° C to 30°C.
- Wash surfaces to remove dirt and road grime – a great “excuse” to treat your trailer to a wash!
- Rinse thoroughly to remove any soap residue as soap film can affect the tape’s ability to stick to a surface.
- Spot clean areas where tape will be applied by wiping down with a quick drying, non-oily solvent. Isopropyl alcohol, acetone, or automotive brake cleaner are all suitable solvents.



Measure and lay out reference marks from a straight line or surface along trailer to ensure reflective tape goes on straight. Bottom edge of trailer frame, seam where roof cap joins trailer side, and flat surface along top of fender are all good reference points. In the example shown above, existing trailer graphics were used. Pieces of 2 inch wide masking tape were applied at approximately 18 inch intervals for use as reference marks. 1 inch wide white reflective tape was cut to required lengths and end tapered to match trailer graphics. Section of top stripe has been installed and tape sections are in place to guide application of lower stripe.



No matter how carefully you plan the location of reflective tape, it may be necessary to work around rivets or other obstructions. Here, one rivet partially interfered with tape stripe. Section of reflective tape is located temporarily with masking tape and rivet location marked. Reflective tape can then be removed and trimmed as required. To clear this rivet a small half-round section was carefully trimmed from reflective tape using scissors.



Reflective tape stripe in place, masking tape pieces removed. Blue, low-tack painter's tape is an ideal choice for this job because it does not leave adhesive residue on surface after removal. Each reflective tape piece is cut to match length of panel. This keeps tape pieces at a manageable length for installation and provides a clean appearance at panel seams.



Photo taken using camera flash only showing effectiveness of reflective tape. Four white tape stripes were applied to sides: Along top near roof cap, one above and one below trailer graphics, and along running board edges. DOT C2 red and white stripes applied to back of trailer. Reflective tape adheres as well to bare metal as it does to painted surfaces.



In daylight, red and white DOT C2 striping still adds visibility to back of trailer while stripes on side look silver and blend nicely with aluminum components.

More detailed information regarding lighting and reflective tape requirements for trailers can be obtained online at the locations listed below:

Transport Canada federal lighting equipment location requirements for trailers:

<https://tc.canada.ca/en/trailers-federal-lighting-equipment-location-requirements>

An explanation of Federal Motor Carrier Safety Administration commercial motor vehicle conspicuity requirements. These are the regulations on which the Transport Canada lighting equipment location requirements are based:

<https://blog.uscargocontrol.com/wp-content/uploads/2014/07/Conspicuity-and-reflector-requirements-393-11.pdf>



Be visible and travel safely!

Beverly Sheremeto and Robert Nagle