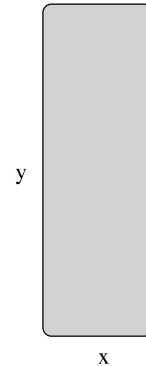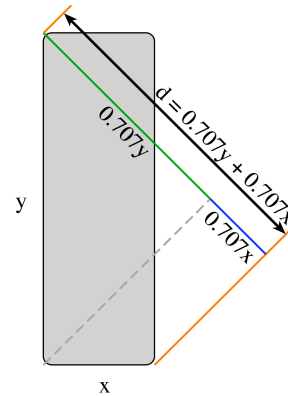# How To Stripe a Type 3-Style Object Marker (of any size)

1. Determine the size of the panel, based on the size of the object to which it will be attached. Object markers typically have 1" or 1.5" corner radii, but dimensions are taken to the corner (ignoring the radius).

2. Calculate $d = 0.707y + 0.707x$, where x is the width of the object marker and y is the height of the object marker.

3. Divide d by 3, rounding <u>down</u> to the nearest <u>odd</u> number. This will determine the number of diagonal stripes on the object marker.

4. The stripes should be allocated using the following guidelines:

   a. The first and last markings in the corners should be black, in order to preserve the diagonal shape of the retroreflective yellow stripes. So the number of black stripes will be 1/2 the total number rounded up, and the remaining stripes yellow (hence the need for an odd number of stripes).

   b. The black stripes should be 5-10% wider than the yellow stripes (the MUTCD notes that the "extra" space should be given to the darker-colored stripes for better appearance).

   c. The yellow stripes should be 3" in width. If you can't satisfy provision (b) with a 3" yellow stripe, increase the width of the yellow in 1/4" increments.

5. For center markers, design the marker as if it was a left or right one, but mirror the pattern around the vertical center line.

Working an example - 12" x 24" object marker:

1. Size: width = 12", length = 24"

2. Calculate d = (0.707 x 24) + (0.707 x 12) = 25.452".

3. Dividing 25.452 by 3 yields 8.484, which rounds down to 7 stripes.
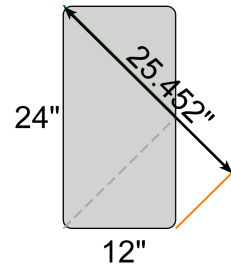
4. :

   a. For 7 stripes, 4 will be black and 3 will be yellow.

   b. (and c):

      - If you set the three yellow stripes at 3" wide, that takes 3 x 3" = 9" of the 25.452". The remaining 25.452" - 9" = 16.452", which is then divided by 4 to yield 4.11" black stripes - but these are 37% wider than the yellow, so they're too wide.

      - If you set the three yellow stripes at 3.25" wide, that takes 3 x 3.25" = 9.75" of the 25.452". The remaining 25.452" - 9.75" = 15.702", which is then divided by 4 to yield 3.92" black stripes - but these are 20% wider than the yellow, so they're still too wide.

      - If you set the three yellow stripes at 3.5" wide, that takes 3 x 3.5" = 10.5" of the 25.452". The remaining 25.452" - 10.5" = 14.952", which is then divided by 4 to yield 3.74" black stripes - these are 7% wider than the yellow, so now they're OK.