# Live Load Distribution Factors

Girder spacing and slab offset is measured at a user specified point on a girder. The point is located a fraction (x) of the bearing-to-bearing span length (Ls) measured from the CL bearing. The point where girder spacing and slab offset are measured is indicated by the red dot in the figure below.

The girder spacing and slab offset are measured long a line passing through this point and intersects with the alignment at a right angle.



Spacing is used in the live load distribution factor equations and for the lever rule.

Overhang is used to compute de which is used in the live load distribution factor equations.

At some location along the girder, the line that is normal to the alignment will no longer intersect the slab edge. In this case, the normal line is intersected with the slab edge projected



Girder lines that don’t intersect the line normal to the alignment are also projected



# Effective Flange Width/Tributary Width

## LRFD Before 2008

For the effective flange width, the slab overhang for exterior girders is measured along a line normal to the alignment passing through the point in question. The girder spacing is measured normal to the girder. Girder line and slab edges are projected as needed.



The tributary width is computed with girder spacing and slab overhang measured normal to girder in question. Girder line and slab edges are projected as needed.

## LRFD 2008 and Later

Effective flange width is taken to be the tributary width. The tributary width is computed with girder spacing and slab overhang measured normal to the girder in question. Girder line and slab edges are projected as needed.