

NYSDOT JOINT CALCULATOR

What does the calculator do?

1. Calculates the Total joint movement in inches for the full range of temperatures established for each Region by AASHTO. In other words: it calculates the distance the girder expands from the lowest to the highest temperatures for the area.
2. Calculates “expected” joint widths or openings at three different temperatures (coldest temp, 68°F, warmest temp).
3. Calculates the width and depth of the closed-cell foam material to install on repair day while the crews are on-site. Sizing the joint material to equal the gap at the coldest temperature would not put the material into tension.
4. Calculates the compression of the closed-cell foam material at 68°F and the hottest temperature to determine if it is in the acceptable limit provided by the Manufacturer.

Some notes:

- Excellent for closed-cell foam joint material.
- You need to input 7 fields shown in green on the spread sheet. 2 of the 7 are drop down options.
- There are diagrams provided at the bottom of the sheet to help the user understand what is required.
- If a Region doesn't like or agree with the Max., Min. temps that AASHTO uses (see AASHTO LRFD Bridge Design Specifications – section 3.12.2.2), you can copy the sheet to a new tab and just overwrite the two temps in those two fields.
- This Joint Calculator operates under the assumption that the bearings are functioning as intended.