The maximum horizontal spacing between vertical control joints in concrete masonry walls is determined by:

- The local average annual relative humidity
- Whether the concrete masonry units are moisture controlled or nonmoisture controlled, as defined by ASTM C 90 (Ref. 1)
- The vertical spacing of bed joint reinforcement
- Exposure to weather

The table shown here recommends spacings for control joints based on these four criteria as presented in Masonry Structural Design for Buildings (Ref. 2).

Control joints also should be placed at:

- Changes in wall height or thickness
- At pilasters, recesses, and chases
- At one side of all wall openings
- At wall intersections

Bed joint reinforcement referred to in the table is two #9, cold drawn, steel wires, one in each face shell bed. Bed joint reinforcement may be replaced by bond beams reinforced with two #9 continuous reinforcing rods. The vertical spacing of the bond beams can be four times the vertical spacing required for joint reinforcement. If used, bond beams should be placed at the top and base of the wall, and below windows.

The map provides approximate average annual relative humidities in the United States, but local weather records will provide better data.

### References