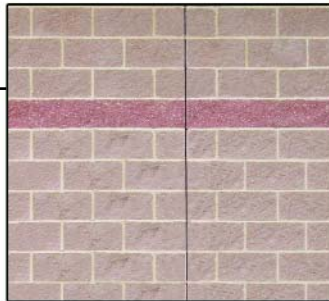


# PCMA MASONRY *tip*

## CRACK CONTROL IN CONCRETE MASONRY WALLS

ANYTIME MATERIALS WITH DIFFERENT PROPERTIES ARE COMBINED IN A WALL, like concrete masonry units,

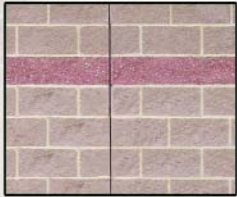
reinforcing steel, grout and mortar, a potential exists for cracking. Differential movement, shrinkage/restraint, structural overload and settlement are some of the reasons that cracking occurs. Control joints, vertical separations built into the wall to reduce restraint and permit movement, are very important wall design elements to prevent cracking.



WHEN DESIGNING AND CONSTRUCTING CONTROL JOINTS IN EXTERIOR WALLS, THE JOINTS MUST BE WEATHER-TIGHT.

## HORIZONTAL AND VERTICAL REINFORCEMENT,

especially when smaller sized rods are placed in closer spacing, has proven effective in controlling crack widths. Shrinkage cracks in concrete masonry are often an aesthetic, rather than a structural concern. Adequate horizontal reinforcement of walls may permit that walls be designed without control joints when the look of the finished wall would be compromised.

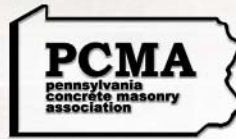


Control joints spaced at 1.5 times the wall height, not to exceed 25 feet, have historically proven effective at limiting cracking in concrete masonry construction when used in conjunction with bed joint reinforcement spaced at 16 inches on center.

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Technical information regarding concrete masonry is available through the National Concrete Masonry Association (NCMA). You can access this information any time on line from the home page of the Pennsylvania Concrete Masonry Association (PCMA) website [www.pacma.com](http://www.pacma.com) or through the NCMA website [www.ncma.org](http://www.ncma.org).

The PCMA website, features a listing of the producer members in Pennsylvania by location with contact information. The site also includes a listing of products and the producer members who can provide these products for you.



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