



## **INSTALLING LARGE FORMAT TILES**

**The TCNA Handbook should be reviewed for changes annually in relationship to the following:**

For large format tiles with one edge greater than 15", the American National Standards Institute (ANSI) specification sets forth a maximum allowable flatness tolerance for ceramic tile. The standard recommends that the substrate have no more than a 1/8" variance in 10', and no more than 1/16" variation in 24".

Grout joint widths shall be three times the variation in the facial dimension of the tile and never be less than 1/16". Facial variation commonly occurs when tiles are pressed and not rectified. The only instance where a butt joint can be used is when a manufacturer expressly produces a tile that is designed not to receive a grout joint. Please inquire if you are uncertain.

### **Off-set patterns:**

To help alleviate lippage, running bond patterns should have no more than an off-set of 33% for tiles with one edge greater than 18". However, lippage can also be caused when the displacement of water in a thin-set mortar installation causes the mortar to retract and pull the tile as it hardens.

**Medium bed mortars** are formulated to control the amount of shrinkage that can occur during the curing process. Using these mortars for large format tiles will allow the tiles to stay level with each other. Medium bed mortars can span from 3/32" to 3/4" thickness after beat in. This provides the maximum support and coverage. Thin-set mortars can only span 3/32" to 3/16" thick.

Control joints must also be considered and incorporated into large expanses of ceramic tile and natural stone. Please refer to the TCNA Handbook for interior and exterior guidelines.