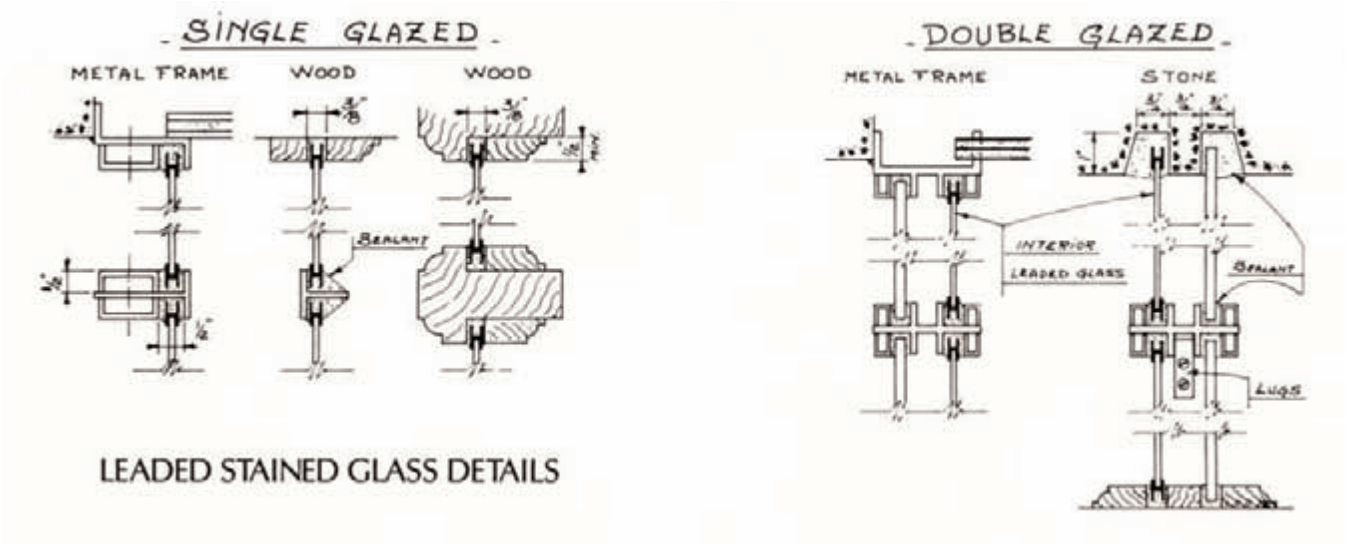

LEADED STAINED GLASS DETAILS

both interior and exterior surfaces of the assembled panel of stained glass. Varying widths of lead came are often used to add to the window's decorative effect as well as enhance its strength.

To prevent leakage, a mastic waterproofing material is inserted between the glass and the flange of the lead came. This process, often called "cementing," is required on both interior and exterior surfaces of the panel and is paramount in weatherproofing as well as stiffening the panel. It is recommended that panels be stored on a flat surface for a minimum of two weeks prior to installation, thereby allowing them to properly cure.

Reinforcing bars, regardless of the type, are typically fastened or mechanically engaged at regular horizontal intervals to the frame, sash or other substrate into which the panel is installed. These surface-applied bars further strengthen and support the installed panel of leaded stained glass. Round bars usually measuring ⅜ inch in diameter, tied to the panels with twisted copper wires, are the most flexible and resilient, and therefore allow for the greatest amounts of thermal movement. Where this system is not suitable, galvanized-steel flat bars can be soldered directly to the surface of the leaded glass panel.

Installation: It is recommended that leaded glass be installed into frames designed specifically for that purpose. Various types can be considered and include wood, aluminum, steel, bronze and stone. Regardless of the type, the most important consideration is that they are capable of supporting the unique qualities of the type of stained glass that is being installed. When possible, glazing beads should be used in conjunction with modern, flexible sealant systems to allow for flexibility as well as mechanical engagement of the installed panels of glass.

The stained glass studio should be consulted as to the best type of frame for the project at hand, the location and placement of division bars, and mullion configuration that will work best with the intended design. This information should be finalized prior to ordering the window frames or sash (usually supplied by the general contractor on a new building) into which the stained glass will be installed.

In general, the type of frame selected needs to be capable of supporting stained glass weighing approximately four pounds per square foot and configured with mullions, allowing sub-division of larger areas into panels of approximately 12 square feet or 14 linear perimeter feet. In addition to the overall structural requirements, the frames or sash must include a glazing rebate that measures ⅜" to ½" wide by ⅜" to ½" deep and allows the panels of stained glass to engage into the frame or sash a minimum of ¼". An allowance of 3/32" to ⅛" between the stained glass panel and the frame is typical.