

# Tecvac, Inc.'s Vacuum Powered PermeNewal™ Permeation Impregnation Process Raises Concrete Compressive Strength Thirty Percent At Natural History Museum



Washington, DC — The vacuum powered PermeNewal™ Permeation Impregnation Process was used to increase compressive strength of concrete parapet walls at the Smithsonian Institute's Museum of Natural History building.

When slate tiles were removed from the parapet to facilitate waterproofing, the concrete wall was noticeably full of voids and cracks and was poorly consolidated. Core extractions confirmed that the concrete was too weak to receive the mounting pins designed for reattachment of the slate covering.

With only one side of the wall accessible, the PermeNewal™ Process was used to impregnate the wall with a thin acrylic resin and cores were again extracted. When the process was completed, laboratory testing revealed the compressive strength of the treated cores averaged a marked increase of 25%. Some lab testing of before/after concrete has produced compressive strength increases in excess of 75%.

For more information, or if you have a difficult problem with concrete, masonry or stone, please contact us.

**TECVAC, Inc.**

886 Rhonda Place, SE Leesburg, VA 20175  
Office 703 742-9186 Fax 703 742-9231 Toll Free 800 847-9324