



Wean Hall MRI Magnet Installation

Walking around the corridors of Wean Hall you would never suspect that there is a state-of-the-art brain research center located on the 3rd floor. The CMU Wean Hall Research Project for the Psychology Department of Carnegie Mellon University converted an outdated and unused space located in the basement of Wean Hall into a fully functional MRI Suite. This project was unique since it was below grade and the MRI rooms had to be completely isolated from the building.

The first challenge was to create a way to access the 3rd floor which was one floor below grade. After much debate and review, it was decided an exterior areaway would be installed to allow a space for the magnet to be brought directly into the MRI Suite. There was an 8' by 8' opening saw cut into a 12" cast-in-place concrete wall. Once the magnet was installed, the opening was filled in with an insulated metal panel.

The second challenge was to build a room that was completely isolated from the rest of the building. We were able to do this by saw cutting the existing floor and placing a new 12 inch isolated concrete slab on top of which all of the walls were then constructed. It was essentially building an entire room inside of another room.

In addition to constructing the isolated room and coordination of the new HVAC, electrical and fire protection systems, many architectural upgrades were included in the project to make the basement of Wean Hall more inviting.