

Spring Run Assisted Living Willow Street, Pennsylvania
Architectural Engineering @ The Pennsylvania State University

Executive Summary:



Spring Run Assisted Living is a 4 story, 116,200 square foot assisted living building in a retirement community. This community, Willow Valley Retirement Community is located only 5 miles south of the heart of Lancaster.

This report is a compilation of two semesters work based on a structural analysis and a possible alternate structural design. It was proposed that the structural system was quite adequate but an inquiry into if a structural steel skeleton could be more efficient. The current bearing wall and plank floor system are to be changed to the new steel system. The lateral load which was carried by the original shear walls has now been altered to be carried by moment frames. The actual design was produced using ram structural system.

Since the new design altered several things, these things were checked in breadth studies. The exterior wall was altered and needed to be checked against ASHRAE standards. Also, a construction management breadth checking the difference in cost and duration of construction was performed.

