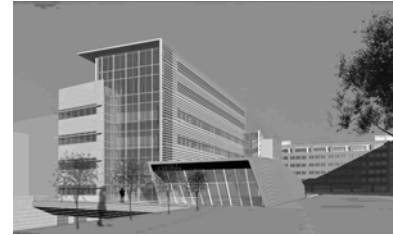


Timothy Mueller  
Structural Option  
Walter Schneider

**FDA CDRH Laboratory**  
Silver, Spring Maryland



**Executive Summary:**

The FDA CDRH Laboratory is an office and laboratory space located on the Food and Drug Administration's White Oak Consolidation Campus. It is a four story building with a full below grade ground floor and fifth floor penthouse suite. The main building is built on a foundation comprising of stepped and spread footings. The buildings main skeleton is made of cast-in-place concrete beam and columns with and oversized pan-joist one-way slab system. The penthouse on the fifth floor and the high bay laboratory located on the west side of the building are both constructed out of W-shape steel. There are large loads found throughout the building due to storage and laboratory equipment, as well as the self weight of the concrete. However, this mass, along with the long and low form of the building gives it a great deal of stability against the lateral loading of seismic and wind forces. These forces are completely resisted by the moment frame construction of the monolithic concrete slabs, joist, beams, and columns. Though Tech report 1 I was able to find how important consistency in design is. The only time my design seems inconsistent with that of the engineer was due to modified or updated codes. When following the correct procedure most familiar design elements should be easily reproduced.