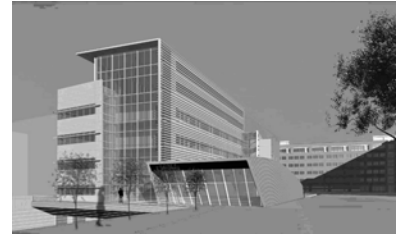


Timothy Mueller
Structural Option
Walter Schneider

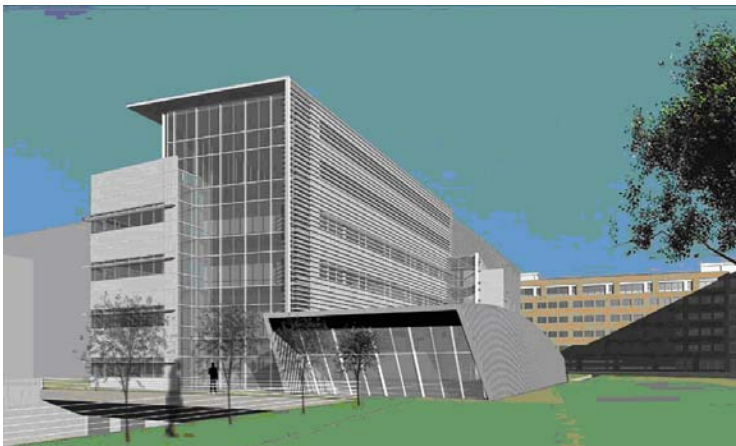


FDA CDRH Laboratory
Silver Spring, Maryland

Breadth Study 2—Architectural Façade of the FDA-CDRH Laboratory:

The FDA CDRH Laboratory is an office and laboratory space located on the Food and Drug Administration’s White Oak Consolidation Campus. The original use of the site was as a Naval Ordnance Research Base. All buildings used by the navy have been demolished with only one exception, the main entrance building, kept for its historic value. This building will be renovated and used as office space for the FDA. Other office buildings located on the White Oak Consolidation will have a similar red-orange brick masonry façade with a slightly more modern design to allow for respect for the traditional design already on the site without having antiquated buildings. The laboratories on site, however, do not have this same continuity, and are made from a completely aluminum and glazing curtain wall. However, even the two laboratory buildings on site do not have continuity with one another, due to the extensive horizontal sunshields found on the CDRH Laboratory that are not found on the CDER Laboratory. I feel that the best solution would be to continue with the design of the offices and allow for slight variations for the façade to show the forward moving thinking and research technology of the FDA while having respect for the current buildings and history that is found on site.

In order to change the façade of the building I will first have to find what type of material would be best used for the location and design of the building. To achieve the look of the traditional masonry I will research three façade types: traditional masonry construction using the same brick as is seen on the other new office buildings, a more modern system of External Insulation & Finish System (EIFS) using a brick finishing in the same color scheme as the surrounding offices this system will have a traditional look without the cost of a finished aluminum or a traditional masonry system, as well as a negligible weight change as compared to the current system. Finally, a precast system using brick veneers that are the same color scheme as the surrounding buildings will also be used. All three of these systems will need to be compared to the current system in the categories of both price and weight. The weight aspect of the building façade will then affect the overall structure of the building as well as the foundation



system and will be taken into account as part of the cost estimate. Also the overall waterproofing and thermal values of these systems will be taken into account and compared with the current system.

Once all work has been completed and the most economical solution, based on price, structural alterations, performance, and appearance, has been determined, a final rendering will be completed to show the continuity of the new façade and the surrounding buildings which can be seen in the background of the laboratories current rendering.