

The Regent

950 N. Glebe Road
Arlington, VA



Architect: Cooper Carry Architects

Breadth Analyses

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Option: Structural
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Breadth Analyses

Construction Management

Since two of the key factors in selecting the existing structural system were cost and speed of erection, a construction management breadth analysis will be conducted to estimate the cost and scheduling differences between the existing system and the new concrete system. Since it already has been initially pre-determined that the existing system is the most cost effective and the quickest to erect, the cost and schedule comparison will be used to determine approximately how much time and money was saved by going with the steel system, if the initial assumption was correct.

Mechanical

Since the new concrete system will most likely have a new depth and framing layout, the mechanical system sizes and layout may not be compatible with the new spatial requirements and layout of the new concrete system. The impact on the mechanical system layout will be analyzed, and if there are conflicts with space and layout between the new concrete structure and the existing mechanical system, a new mechanical system layout will be proposed.

Fire Protection

Since the new concrete structure is a new material, layout, and thickness than the existing steel structure, it will have a different fire rating. The fire rating of the new concrete system will be compared with the fire rating of the existing steel system. Also, any impacts on cost by utilizing the concrete system will be determined.

Acoustics

Since the new concrete system is significantly different than the existing steel system, it will have different acoustical values and effects. The Regent is primarily a spec office building, which has the potential to have several different tenants. An acoustical study will be performed on each system to see which performs better in preventing noise from penetrating through the floor system.