



Towers Crescent Building B
Mike Synnott
Structural
Advisor - Parfitt



Final Presentation

Introduction

Towers Crescent Building B is a 9 Story, mixed use retail and office building. Located in Vienna Virginia, it shares its space with two other buildings already located on the site. This 200,000 square foot building completed construction in November 2001 at a cost of about \$45,000,000.

The owners of Building B, Quadrangle Development Corporation and AEW Capital Management hired the following firms for the design of the building.

- RTKL Architects designed the building, basing it off of an existing building, already on the site.
- KCE Structural Engineers handled the design of the structure.
- EDG-MEP Engineering handled the design of the mechanical and electrical systems.
- Davis Construction Corporation acted as general contractor and Construction Manager for the construction of the building.

My proposal for Building B is a look into the structural design of the building and to check if the composite steel design is in fact the most efficient design for the building. Two alternate structures will be investigated. The first structure looked at a concrete flat slab layout, using the same column layout as the original design. The second is also a concrete flat slab, but with an extra row of columns added to decrease the size of the bays.

Two breadth studies were also done on Building B. The first is an in depth look at the architectural history of the building and why it was designed the way it was. The second is an in depth cost analysis/comparison of the existing design and the two alternate designs.



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Site Information

Located on the 8000 block of Towers Crescent Dr are three buildings, Towers Crescent, Building B, and Building C. Towers Crescent was built first, in the mid 1980's, while buildings B and C were built about the year 2001. The photo below is of the site taken from Google Earth. Highlighted in red is the original Towers Crescent building. In blue is Building B and in green is Building C.

