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Structural
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Office Building, Washington, DC*
Technical Assignment 1
10/5/05



All renderings courtesy of Dreyfus Property Group and KRJDA

Executive Summary

An in-depth description was done for an office building in downtown Washington, DC. It is 12 stories above grade and sits in an urban environment. The structure was found to be a mix of concrete systems. The below grade floors are 2-way flat plate concrete slabs. There are drop panels on some below grade columns and most columns on the occupied floors. The slabs on the upper floors are post-tensioned with a 20' exterior cantilever on 3 sides. Lateral load analysis was done to determine storey shears due to wind and seismic loading. A snow load analysis was done on the roof and aided in a spot check of a rectangular column due to gravity loads. On the lower level a 2-way slab span was also spot checked. The building is governed by IBC 2000 with a 2003 Washington DC code supplement. Concrete design complies with ACI code specifications. This gave a valuable insight into the building design but much more thorough analysis will be needed in future investigations.

*Building specifics withheld at owners request