

Inova Fairfax Hospital South Patient Tower



Falls Church, VA

Senior Thesis 2012

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South Patient Tower

Building Introduction

Site Map

- ❑ **Building Introduction**
- ❑ Existing Structural System
- ❑ Problem Statement
- ❑ Proposed Solution
- ❑ System Redesigns
- ❑ Base Isolation System
- ❑ Comparison of Designs
- ❑ Architectural/Façade Breadth
- ❑ Questions /Comments

- ❑ Hospital/Patient Tower
- ❑ Located in Falls Church, VA
- ❑ 236,000 SF
- ❑ Height – 145' to Main Roof Level
- ❑ Construction Cost - \$76 Million
- ❑ Summer 2010 – Fall 2012
- ❑ LEED Silver Certification
- ❑ Design – Bid – Build



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Earthquake Scaling

- Earthquake history records were selected and scaled for a nonlinear time history analysis**
- Recommendations from FEMA P695
- Scaling was done for the response of the building in Sacramento, CA

Normalized Accelerations

