VIRGINIA ADVANCED SHIPBUILDING & CARRIER INTEGRATION CENTER
NEWPORT NEWS, VA

John Boyle
Structural Option
Thesis Advisor – Dr. Behr
• Introduction
• Existing Structural System
• Problem Statement
• Proposed Solution
• Column Layout Redesign
• Slab Redesign
  • Two-way reinforced conc.
  • Architectural Impact
• Loads
• Column Strip Design
• Column Redesign
• Lateral System Redesign
• CM Breadth – Cost Analysis
• Flood Analysis

SLAB REDESIGN

• Results
  • 12” thickness w/ 3” drop panels
  • Penthouse:
    • 10” thickness w/ 3” drop panels
    • Nearly 8”/floor reduction

SLAB THICKNESS FLOORS 1-7

SLAB THICKNESS PENTHOUSE
• Introduction
• Existing Structural System
• Problem Statement
• Proposed Solution
• Column Layout Redesign
• Slab Redesign
• Loads
• Column Strip Design
• Column Redesign
• Lateral System Redesign
• CM Breadth – Cost Analysis
  • Existing Building Cost
• Redesign Cost
• Flood Analysis