

Presentation Outline

Spring Thesis Final Presentation Outline

This document contains the exact outline that will be used to create the final thesis PowerPoint presentation.



→Project Overview**→Depth Analysis #1: Alternative Structural System (Precast Concrete)**

- Problem Statement & Proposed Solution

Breadth Analysis #1: (Structural Analysis of Precast System)

- Developing a Precast Design
- Determination of Loads
 - Snow load, Snow Drift, Mechanical Loads, Member Self Weights
- Sizing Precast Members
 - Double Tee, Inverted Tee, Ledger Beam, Precast Column
- Total Design Summary
 - Precast System Cost Summary
 - Precast System Installation Summary
- Overall Systems' Comparison and Analysis Results

→Depth Analysis #2: Alternative Building Envelope (Precast Insulated Panels)

- Problem Statement & Proposed Solution

Breadth Analysis #2: (Mechanical) Thermal Analysis of Precast Insulated Panels

- Original System vs. Proposed System (Specs & Details)
- Thermal Analysis Original System
 - Heat transfer through insulated metal panels
 - Condensation analysis through insulated metal panels
- Thermal Analysis Proposed System
 - Heat transfer through precast insulated panels
 - Condensation analysis of precast insulated panels
- Thermal comparison of both systems
- Total Design Summary
 - Cost summary of precast system
 - Installation summary of precast system
- Overall Systems' Comparison and Analysis Results

→Depth Analysis #3: Safety Design Guide

- Problem Statement & Proposed Solution
- Prevention through Design Industry
- System Selection based on Installation Risk
- Typical Steel Connections in Atrium Medical
- NISD Industry Standard Manual Details
 - Tools of the trade, beam to column web moment connection, beam marking etc.
- Analysis Results Summary

→Conclusions and Recommendations**→Acknowledgements**

The final presentation will be a three screen presentation composed of approximately 35-40 slides.