

Daniel Hancock
Structural Option
Dr. Hanagan

S&T Bank
Corporate Headquarters
Indiana, PA



Executive Summary

The following technical report provides a structural study of the existing and four alternative floor systems for the S&T Bank Corporate Headquarters in Indiana PA. The purpose of this report is to evaluate whether or not any of the systems is a viable alternative floor system to the existing floor system.

The four alternative systems that were analyzed are...

- Composite Decking w/ Steel Beams
- One-Way Concrete Joist Slab System
- Pre-cast Pre-stressed Hollowcore Plank
- Two-way Flat Slab w/ Drop Panels

To make an educated decision on whether or not any of the systems would be a good alternative, several factors were considered. Among those considered were...

- Cost
- Time of Construction
- Depth of System
- Vibration Control
- Fire-proofing

After the analysis of each system, a comparison of Pros and Cons helped to determine which systems would be a good alternative.

- The existing system is an adequate system
- Composite is an efficient alternative
- One-Way Joist is not a viable alternative
- Pre-stressed Hollowcore is not a viable alternative
- Two-Way Drop Panel is a viable alternative