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Structural Option
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S&T Bank
Corporate Headquarters
Indiana, PA



Executive Summary

The S&T Bank Corporate Headquarters is a 4-story steel frame building. The foundation consists of spread footings to support the weight of the building. The framing of the building forms directly into the columns. The floor system is a form deck supported by joists that are 2'-0" on center. To resist lateral loads (from seismic or wind) many of the connections are moment connections. These "wind clips" are designed to resist only the moments caused by lateral loads.

The following report is a proposal of work and analysis for the upcoming semester. It includes a background of the project in question, a problem, proposed solutions, solution methods, tasks and tools to complete solution methods, and a timetable that will assure adequate proposal completion time.

S&T Bank is a relatively simple building design and not very intricate, it is probably the most efficient steel system. Since the design is so basic, a creative redesign is not ideal. Therefore the proposed problem is, "is steel a more efficient system than concrete would be?" To answer this, a redesign of the current building into concrete will be done using ADOSS or another comparable program. The proposed concrete system is a two-way slab system, with or without drop panels. This was determined by the analysis done in Tech 2. Once the redesign is finished, cost and schedule will be compared to the original steel design to determine which system is more economic. Impacts on the foundation and architectural layout will need to be considered. There are roughly 12 weeks to finish the proposal and prepare for the final presentation.