



## **Executive Summary**

This following senior thesis report is a detailed analysis of the design and construction of Two Liberty Center as well as an investigation of current issues facing the construction industry. The body of the report is divided into six major sections.

The first two sections of the report provide information important to gain an understanding of the construction planning and processes as well as basic design elements of the building. Understanding of the content of these first sections is critical to fully grasp the content of the later sections of the report.

Section three of the report is based on research completed based on the effect that the cost of energy is having on the way new construction projects are being developed. This research based analysis considers the role that developers have in initiating construction projects and how their role is moving towards one with greater concern for building efficiency and sustainability.

The fourth section is a construction based analysis that looks to provide an opportunity for substantial schedule savings on Two Liberty Center project. These schedule savings are achieved through an analysis and re-sequencing of the façade construction process.

The final two sections of this report are intended to demonstrate some of the alternative practices identified in the research analysis from section three. Section five is a mechanical based analysis centralizing the mechanical system of Two Liberty Center to provide the building owner with the opportunity for savings on utility costs. The sixth and final analysis is architectural based and focuses on the implementation of green roofs as a sustainable practice and aesthetic marketing tool with functional benefits.