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CONSTRUCTION MANAGEMENT
AMBRIDGE AREA HIGH SCHOOL
AMBRIDGE, PENNSYLVANIA
ADVISOR: DR. JOHN MESSNER
TECHNICAL ASSIGNMENT 3



EXECUTIVE SUMMARY

In Technical Assignment 3, you will find Critical Industry Issues, Critical Issues Research Method, Problem Identification, and Technical Analysis Methods. This report will aid to introduce my research topic and systems analysis. Also included are the research methods I plan to use to address these issues.

The Critical Industry Issues section provides a summary to the PACE (Partnership for Achieving Construction Excellence) Research Seminar held annually at The Pennsylvania State University. There, students are given the chance to interact with industry members in formal discussion sessions posing and answering questions about industry topics. I attended the “Building Systems Challenges - *Start-up, Operations and Maintenance*”, “Building Information Modeling – *Model Development and Maintenance*”, and “Building Respect – *With Design Professionals*” sessions, where I gained insight to these aspects of the industry from the professionals whom experience it everyday.

In the Critical Issues Research Method, I will look to identify a topic, which I will research throughout the spring semester. My research will look to identify the barriers that public school districts have to building green and along LEED® design criteria. My goal is to examine the issue from the school district side as well as the design professional side to show green design principles that could easily be included in school design if districts realized their reduction in life-cycle costs of operating the building.

The Problem Identification and Technical Analysis Methods sections aim to identify potential problems with the Ambridge Area High School, which can be analyzed using different methods including constructability review, value engineering analysis and schedule reduction. I look to address three issues including precast brick façade, steel erection sequencing, and incorporating a green roof system to the design.

