



The Eberly Campus Community Center
Uniontown, PA

Building Systems Renovation Proposal: Addendum I

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Executive Summary

The previously submitted proposal has been deemed impossible for the time and personnel constraints imposed through this course. Therefore, this addendum contains a streamlined version of the original proposal, with more consideration given to the realm of the humanly possible. The resources and bibliography remain the same as in the original proposal. Included within this addendum are simply a bulleted list of the planned work and a schedule of the planned activities. The planned work is included in three alternatives, with the breadth being spread out between the three alternatives in different steps. The planned alternatives and breadth ideas are included below.

Alternative 1: Mold remediation and moisture removal systems.

Alternative 2: Systems redesign to counteract underutilization measures.

Alternative 3: LEED EB evaluation of the proposed changes.

Breadth Options:

Construction Management: Construction estimates for proposed changes and the budget necessary to replace the existing building.

Acoustics: Study into the effects of moisture on the acoustics of the existing theater space.

Structural: Check that the proposed mechanical renovations can be supported by the existing structure.

Alternative 1: Moisture and Mold Remediation

- Existing Conditions Analysis: On-site investigation, contact with CM and GC, building enclosure study with WUFI 4 program.
- Mold Remediation: Research methods of estimating existing mold, removal and remediation methods. Suggest course of action.
- Moisture Removal: Study building enclosure to determine the source of the moisture problem. Take action based upon the results. Possible mechanical system renovation involving single zone variable volume units and/or desiccant wheels.
- Construction Management Breadth: Estimate costs of new mechanical systems and mold remediation efforts. Complete building estimate to compare the price of the remediation with the cost of physically removing and rebuilding the building in question.
- Acoustics Breadth: Study into how the current moisture problems within the auditorium are affecting the room acoustics. Suggest changes to improve acoustics or counteract the moisture damage to the existing acoustical measures.

Alternative 2: Redesign of Mechanical Systems for Underutilization

- Controls and Scheduling: Study the affects of controls upon the use of the existing and proposed systems.
- Renovated Systems Proposal: Review the most affected rooms and propose systems that will operate effectively during peak as well as severely underutilized times.
- Energy Model: Used to determine the effects of the system changes from alternatives 1 and 2 upon the overall building energy use
- Construction Management Breadth: Estimates of the building renovation costs.
- Acoustics Breadth: Insure that the selected equipment does not detract from the room acoustics.
- Structural Breadth: Insure that the existing building walls can handle the newly proposed mechanical equipment.

Alternative 3: LEED EB Analysis

- Comparison: Check the acquired credits resulting from this proposed renovation. If there are points which can be easily and cheaply obtained, the resulting additional work shall be proposed and added within this section.
- Construction Management Breadth: Comparative financial analysis of the cost of the additional LEED points.

| January | | | | | | |
|---------|-------------------------------|-------------------------------------|---------------------------------|------------------------------|------------------------------|----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | 15 | 16 | 17 | 18 | 19 | 20 |
| | Spring Semester Classes Begin | | | | Interview - Buffalo NY | |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| | Background research | Research more of the existing cond. | Consult in DC (Solar Decathlon) | Start new energy model | Interview in NYC | |
| 28 | 29 | 30 | 31 | | | |
| | Research | Alternative 1: Moisture & Mold | WUFI modeling contact CM | Alt. 1: moisture remediation | Start breadth visit to site? | |

| February | | | | | | |
|----------|-----------------------------------|----------------------------------|------------------------------------|----------------|------------------------|----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | | | 1 | 2 | 3 |
| | Begin Alt. 2 Mech Redesign | | Study: equip. & distribution syst. | | | |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | Continue Breadth w/ mech redesign | | | Breadth work | | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | Working | Start considering LEED EB points | Begin writing paper | Working | Finalize Alt. 1 | |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| | | Consultations | Working | Energy studies | LEED | |
| 25 | 26 | 27 | 28 | | | |
| | Paper writing | | If on schedule, renewable energy | | Consultations Breadth? | |

| March | | | | | | |
|--------------|--------------------------------|------------------|---------------------|--------------------|------------------|--------------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| | | | | 1 | 2 | 3 |
| | | | | | | |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | Working Perfecting | | Finalize Alt. 2 | | Finalize breadth | |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Spring Break | Attempt to work from home/here | Paper writing | working | writing | working | Spring Break |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| | | Finalize studies | Proof reading paper | | | |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| | Final Paper Adjustments | | | Start Presentation | | |

| April | | | | | | |
|--------|-----------------------|-----------------------|------------------------------------|-----------------------|-----------------------|----------|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | Paper Proofreading | Presentation Proofreading | | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | Presentation Practice | Presentation Practice | Presentation Practice | Presentation Practice | Presentation Practice | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | Thesis Present. Begin | | Presentation! 1:00 ICON Lab | | | |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | | | | | | |
| 29 | 30 | | | | | |
| | | | | | | |