The Bucktail Medical Center Emergency Room Redesign

Overview
The Bucktail Medical Center is a small community owned hospital and nursing home located in Renovo, PA. Currently, their emergency room is outdated and cannot accommodate any significant flow of patients. Through the middle of the room runs a large dividing wall that is a major hindrance to staff sightlines and workflow. In addition, they are only equipped with three patient beds, with only one of them being equipped with cardiac stabilization equipment.

Objectives
The project was split up into two separate phases. The goal of Phase I was to more or less repurpose the current layout of the existing emergency room including the removal of several non-load bearing walls, addition of a fourth patient bed, addition of two new workstations for staff, and so on. Phase II of the redesign focussed on expanding the emergency room outward while continuing to improve patient and staff flow with the addition of improved security measures.

Approach
- Meet with sponsors to discuss areas of improvement and scope of project
- Construct a plan of action for the group using a Gantt chart
- Visit the medical center to brainstorm ideas for the improvement of emergency room
- Conduct research of existing hospitals and medical centers for ideas
- Create CAD models of the current floorplan and subsequently the proposed floorplan
- Conduct Importance-Workflow metric to ensure improved redesign
- Price out Phase I redesign
- Visit the medical center to brainstorm ideas for the Phase II expansion of the emergency room
- Construct CAD model of expanded floorplan
- Research security measures medical center could implement in Phase II redesign
- Research some prices and suppliers for Phase II redesign

Outcomes
- Phase I redesign effectively gives the hospital staff a better space to work in with regards to both patient and work flow.
- The pricing of both phases of redesign should give the medical center the means to make educated decisions while conducting their project.
- The proposed floorplan for Phase II should give an idea of how the actual redesign will look and work upon completion.
- Experts were consulted while constructing both phases of redesign, so the given plans should all be feasible and realistic for the hospital staff.