Process Improvement in the mixing area

Overview
Bedford Reinforced Plastics wants to redesign the current mixing process. The team was assigned with the task of redesigning the company's mixing facility. The team used six sigma tools to create a well-organized layout of the facility which reduced waste and increased throughput.

Objectives
- Improvement of the layout with either reorganization or expansion or both
- Reduction in material wastage
- Changing the role of manual labor from assembling the raw materials of the mix to a supervision only role
- Improve the control on environmental factors such as humidity to improve the quality of the mix

Approach
- The team studied the company's current layout.
- Industry research to better understand the process
- Brainstorming to find different solutions
- Researched machinery to find the best machines which needs minimum human interaction
- Cost/benefit analysis to choose the best solution

Outcome
- New U-Shaped layout
  - No repetitive motions
  - One streamlined process
  - Waste reduction since now the barrel will come to the materials instead of the materials going to the barrel.
- Automatic machinery
  - Reduces human error
  - Increases accuracy of the mix
- Throughput increased by 25%