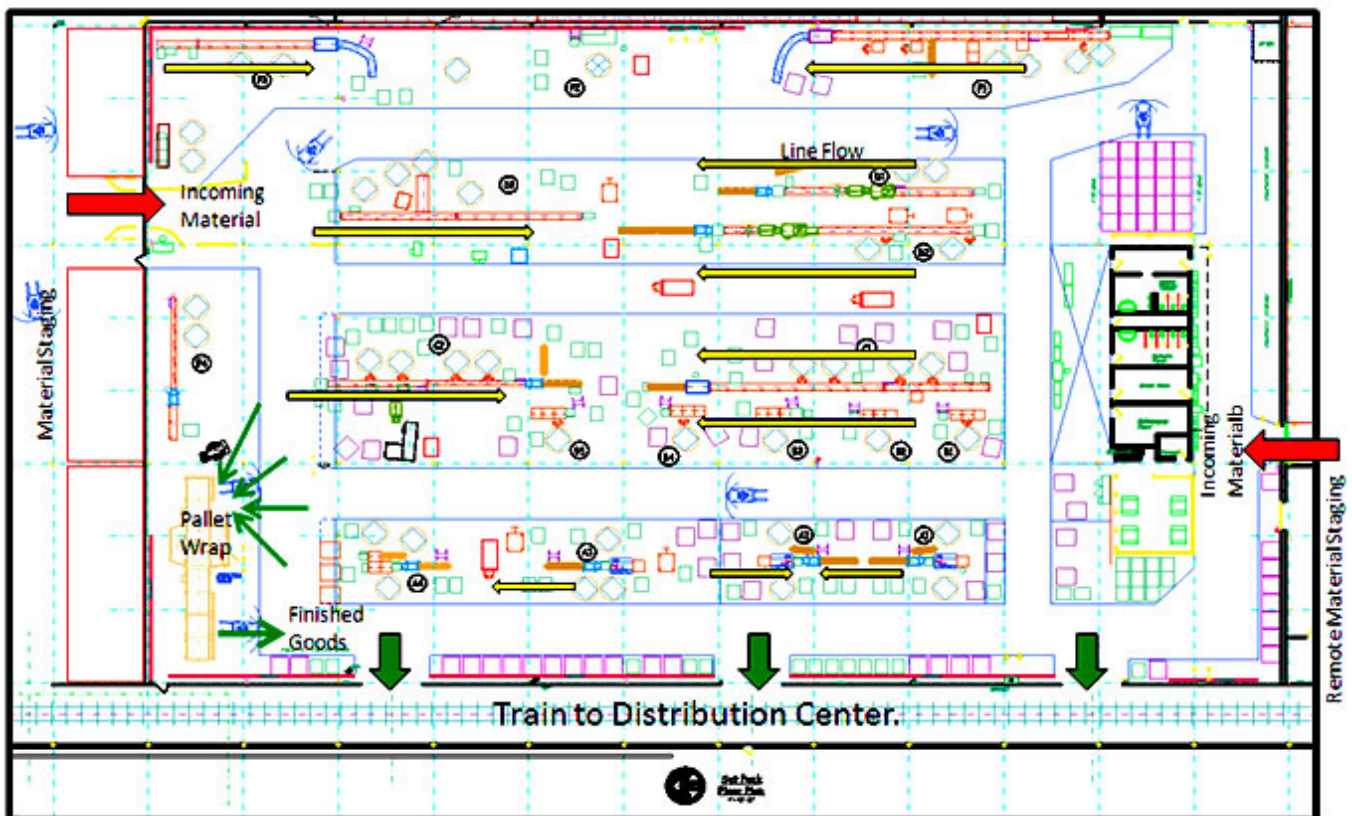


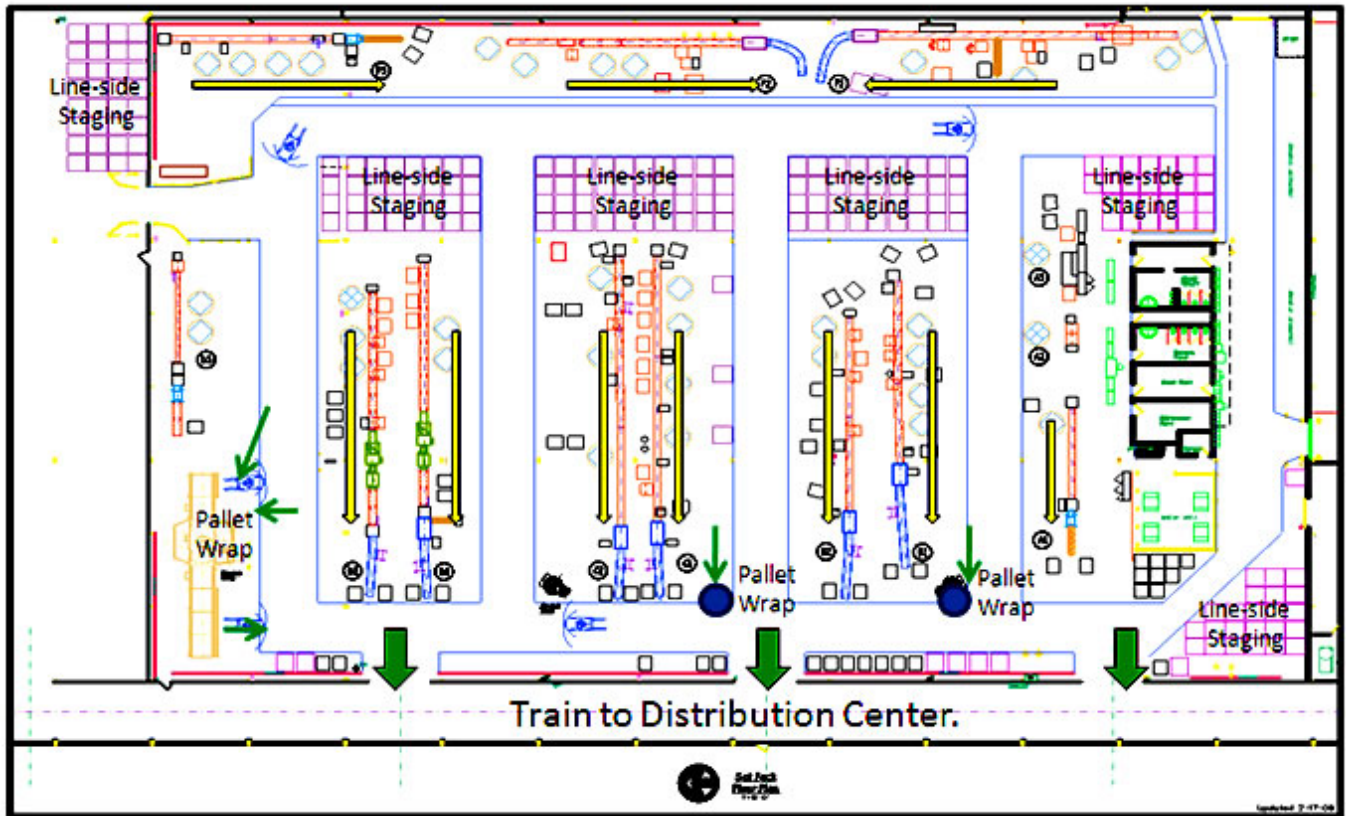
## Industry: Glassware Manufacturing

Comprehensive intervention focusing on improving production and packing cell design, distribution centre systems improvements including a visual kanban system and an internal milk-run system, various process kaizen/LIFT events, scrap reduction, process yield improvements, material and energy cost savings.

- Project timeline: 35 weeks
- Project cost: \$386,453
- Project annualized savings: \$4,000,000
- Return on Investment: 10.4



Previous Layout and Material Flow



### Current Layout

### Improvements

- Improved material flow (also increased safety)
- Direct line-side staging of raw materials
- Forklift operate milkruns in zones, one less driver needed
- Lines dedicated to families
- Offloading can be staffed by one operator
- Andon and material call installed
- Improved standardized work and line balance on a product family basis with major efficiency gains
- Daily management system put in place