

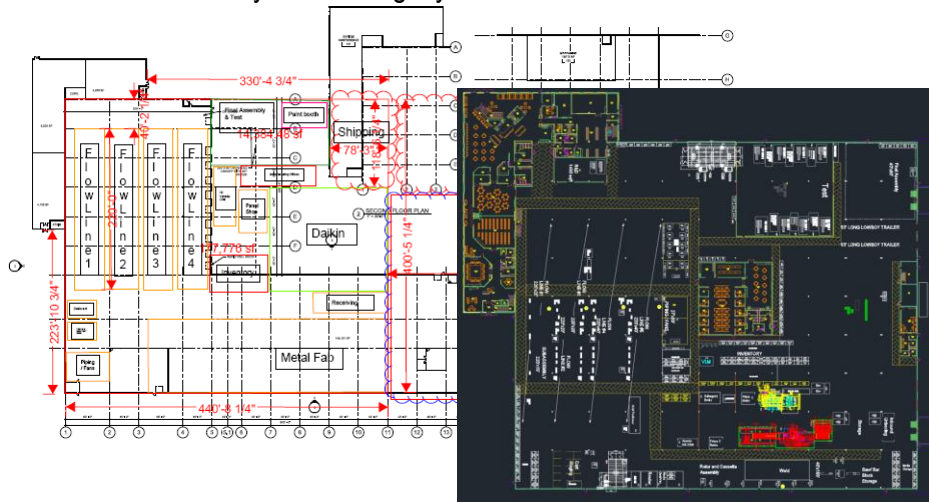


Key Points

- Let the Process Lead the Design
- Optimize Production Layout
- Proper testing of new process
- Attack over-engineering
- Efficiency in Flow of Plant
- Future Proof Site
- Lower Construction Costs

Building Layout / Operational Flow

Our client's CDI was designing a new facility for their operations. Current operations were at capacity in their main facility with three additional off-site locations being utilized as well. Carrus Group received their initial new plant design and began running production flow models through the building which revealed the inefficiencies in the operational flow as well as the budget overruns caused by the building layout.



Building Redesign – Cost Savings

Our Industrial Engineers and Project Managers went to work, studying our clients process and letting that drive the new building design. We were able to create a building that more efficiently supports their operations while allowing for greater future expansion on the site. Carrus Group also looked specifically at the material handling assumptions that were made in the design and better aligned them with equipment and process resulting in a \$2.2 million dollar savings for that budget. Total cost savings are nearing \$4.5 million, without taking into considerations for increases in throughput and efficiencies.

Our Method

- Evaluate ALL Operations and Processes Flow
- Assess Building Design
- Engage Client and Test Recommended Changes.
- Document Changes and Implement New Design
- Equipment Selection / Install

Project Savings

\$1.2 M – Pre-cast / Steel
\$2.2 M – Overhead Cranes
\$450K – Concrete Site Work
123K sq ft – Future Expansion

Customer Contact

Patrick McDermott – Director of Manufacturing / Operations