



How to Plan and Execute a Successful Move



AIS: Abstract/Executive Summary

PROJECT REVIEW



Company:
AIS



Location:
Leominster MA



Segment:
Commercial
Furniture



Project:
Relocation



Time:
0 Delays

In September of 2014, AIS (Affordable Interior Systems) moved into its new 600,000 SF manufacturing, distribution, and corporate office facility in Leominster, MA. Phase 1 of this move consisted of completing the design, engineering, and construction of 375,000 SF of this facility, then disconnecting and relocating approximately 85 pieces of production equipment and moving 12,000 pallets and containers of raw material, packaging, and finished goods. The move was completed in three phases; first – the distribution area was completed in one weekend; second – warehouse was completed over a one-month period; and third – manufacturing area was completed over a two-month timeframe. As an added hurdle, AIS' largest shipping company went out of business during the week that the distribution area was moved. Goal of zero delays in meeting shipping and production dates was met.



The success of the project is a testament to good planning and great execution of the plan.

Problem Statement

WHY MOVE? Since its founding in 1985, AIS had grown to occupy a total of 439,000 SF of manufacturing and office space in five separate facilities in four different towns. The consequences of having multiple locations were high intraplant transportation costs, poor communication between departments, resources not being shared, double and triple handling of products, and longer lead times. As a result, AIS was becoming inefficient and wasteful, which created restrictions to future growth.

Develop a project plan and execution to include the following points:

- **Relocation.** The plan started with a search for a building that would accommodate the current and future growth requirements of AIS.
- **Establishing a Project Team.** With the selection of a location, the design and implementation phases of the project commenced. The first order of business was forming an internal AIS project team.
 - Hire an industrial engineering consultant to assist in the development of a layout for the facility.
 - Hire a design-build construction manager, who would be responsible for the development of the architectural and engineering documentation for the project and for establishing and maintaining the overall project budget and schedule.
- **Establish Project Goals.** Complete the design for the facility and establish project goals.
- **Establish a schedule and budget.**
- **Process Review and Requirements.** Analyze current process shortfalls and conduct future needs assessment based on projected growth and corresponding requirements.
- **Develop an efficient building layout.**
- **Provide manufacturing and distribution process solutions.**

The result of all this planning – the project was delivered under budget and on schedule and project goals were met. No time was lost on any customer orders; all productivity goals were achieved; no forklift traffic where people work in the manufacturing process; and a more efficient work environment was obtained.

Background

ABOUT AIS

AIS is a national manufacturer of commercial office furniture and seating. Founded in 1985, AIS has grown to be one of the leading national brands of office systems furniture. The company's growth and success have been astounding – the results of thinking about furniture differently; being passionate about servicing clients and dealers; implementing design changes quickly to meet the needs of the ever-changing office landscape; and being flexible and responsive, manufacturing custom products in 7 to 10 working days.

The AIS culture is one of ingenuity and creativity in design and production – of always looking to do it better, faster, and less expensively. AIS has been awarded the Shingo Prize for Excellence in Manufacturing, rated by Industry Week as one of the top 25 manufacturing plants in North America, and selected as The Office Furniture Dealers Alliance (OFDA) Bronze Manufacturer of the Year four times. They are also leading the industry in sustainable and lean manufacturing.



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Solution

THE PROJECT AND THE PLAN

Relocation

The plan started with a search for a building that would accommodate the current and future growth requirements of AIS. The facility had to be located in close proximity to the current workforce and afford access to a large and stable workforce. The facility would require an infrastructure to accommodate manufacturing requirements such as large electrical and gas utilization to be provided within a competitive rate structure. Good highway access was also critical in that AIS generates upwards of 15 to 20 truckloads of product per day using Truckload and LTL common carriers. Working with AIS on this phase was CBRE | New England and the brokerage team of Mark Reardon and Bob McGuire.

The search took some time, but in the end, a perfect fit was found in Leominster, MA. The building was a 600,000 SF former plastic manufacturing facility that had been vacant for 10 years. It was comprised of 550,000 SF of high-bay, clean, wide-open manufacturing space and 50,000 SF of office space; it had a great loading area easily split between receiving and shipping. It was convenient to the existing facilities and employee base, and had good highway access and utility availability.

Determining the Project Team



AIS Team:
Steve Savage,
COO

Keith LeBlanc,
Manufacturing
Engineering

With the selection of a location, the design and implementation phase of the project commenced. First order of business was forming an internal AIS project team. This process is one of the most critical and important decisions in creating a plan for a successful project. It requires the designation of a senior management participant to act as the project champion and decision maker. Steve Savage, COO of AIS, was assigned to this role. Under this corporate champion, a project manager was designated whose role was to coordinate the various corporate departments and interested parties into a cohesive and directed team. His role was to gather all the various requirements and generate a project program that responded to these requirements within the budget that had been established. Keith LeBlanc, manufacturing engineer, was assigned to this role.



Engineer:
Boston
Industrial

The next step in the process was to bring an industrial engineering consultant on board to assist in the development of a layout for the facility. When consolidating the various AIS operations, it was critical to the success of the project to develop a detailed inventory of existing equipment and its corresponding utility requirements (equipment matrix), as well as a workflow analysis of the various production processes. This assignment is best done by a professional who can develop layouts with data reinforcing their efficiencies in work flow productivity and economic gains. Robert Liptrot and a team of engineers from Boston Industrial Consulting, Inc. were retained for this role. AIS, Boston Industrial provided the analytical analysis and overall review to the Master Plan, detailed equipment layouts, and supporting infrastructure requirements being developed by AIS. This detailed level of documentation is critical for a successful move coordination. The equipment move must be successfully sequenced and prespotted with utility locations specified for immediate connection and start-up.



**Design Build
Construction
Manager:**
Dacon

Establish Project Goals

Working closely with Boston Industrial, the design-build construction manager was responsible for the development of the architectural and engineering documentation for the project, and for establishing and maintaining the overall project budget and schedule. Dacon Corporation with its project team of Jeff Prince, AIA, Senior Project Planner, and Wayne Sidle, Project Architect, came on board to fill this role.

Project Schedule and Budget

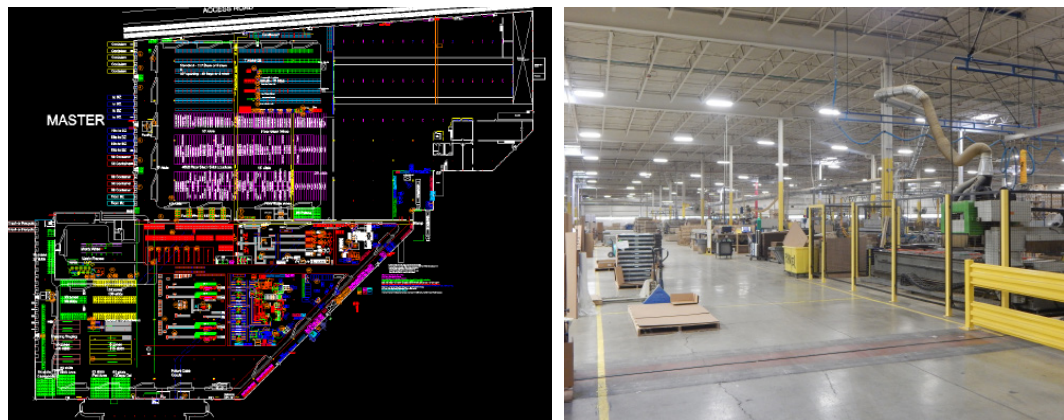
In completing the design for the facility, Boston Industrial, Dacon, and AIS established overall project goals. These included developing a manufacturing process that did not require fork-lift assistance, a layout that would allow for 25% productivity gains in manufacturing efficiency, creating a safe and clean work environment to improve employee work experience and productivity, and establishing a schedule and budget that would be committed to by all parties.

Develop an Efficient Building Layout

In completing both the programming and design, exhaustive brainstorming was undertaken to analyze current process shortcomings and conduct future needs assessment based on projected growth and corresponding requirements. With this information, lean tools were brought into play to assist in the development of an efficient building layout. These tools included value stream mapping and a 5S design process.

Provide Manufacturing and Distribution Process Solutions

Concurrently with the design process, Dacon was finishing a total building analysis of existing conditions. As the design process proceeded, architecture and engineering documentation was completed for support areas and utility support systems necessary to accommodate the manufacturing and distribution processes. Dacon was also responsible for interfacing with local building code officials for permitting, construction, and building occupancy.

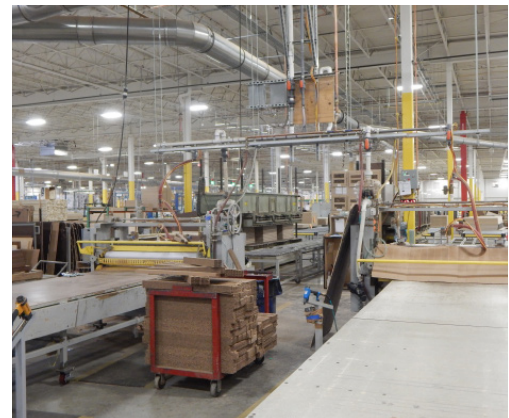


CONCLUSION

The result of all this planning – the project was delivered under budget and on schedule.

Project Goals Met:

- No lost time on any customer orders
- All productivity goals were achieved
- No forklift travel throughout the manufacturing process
- Work environment is conducive to employee productivity





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